Subordination in native South American languages

Edited by: Van Gijn, Rik ; Haude, Katharina ; Muysken, Pieter

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Subordination in South America

An overview*

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In terms of its linguistic and cultural make-up, the continent of South America provides linguists and anthropologists with a complex puzzle of language diversity. The continent teems with small language families and isolates, and even languages spoken in adjacent areas can be typologically vastly different from each other (cf. Adelaar, with Muysken 2004: 2). With some notable exceptions, South-American languages have long been understudied. The Amazon basin has been called "the least known and least understood linguistic region in the world" (Dixon & Aikhenvald 1999: 1). As a result, South-American languages have often been underrepresented in typological samples and theory-developing contributions to linguistics. In the last decade a remarkable change in this situation has occurred: over 40 descriptive grammars of South American languages have been produced at various academic institutions all over the world, disclosing an enormous wealth of new linguistic data.

This volume intends to provide a taste of the linguistic diversity found in South America within the area of subordination. The potential variety in the strategies that languages can use to encode subordinate events is enormous, yet there are clearly dominant patterns to be discerned in South America, like switch reference marking (whether or not in combination with clause chaining), nominalization, and verb serialization. However, these general contours should not be taken to mean that the linguistic diversity in the domain of subordination is limited in the area. Within each major type, there is still much room for variation.

The collection of articles presented here originates from a workshop entitled *Subordination in South-American languages*, which was held at the Max Planck Institute for Psycholinguistics and facilitated by the Center for Language Studies of the Radboud University Nijmegen in December 2007. Not all contributors were presenters at the workshop: the contributions by Galucio, Guillaume, Muysken, and Salanova were included later.

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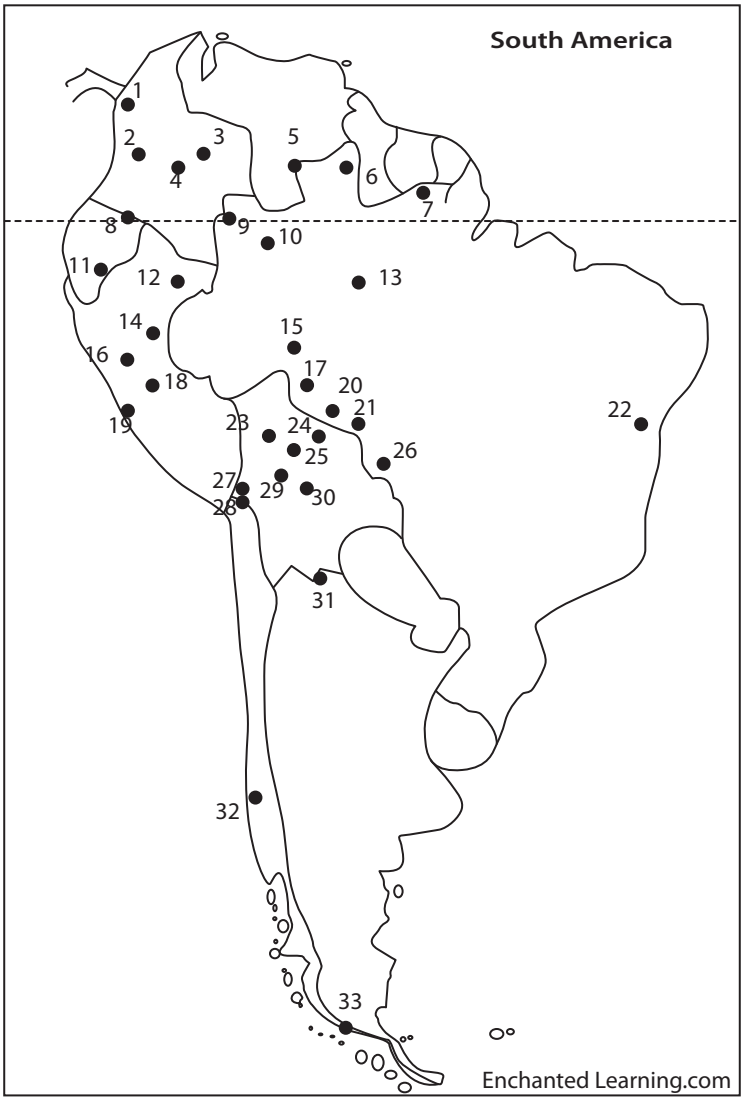

Map 1. Approximate locations of languages discussed in this chapter

1. Northern Embera
2. Paez
3. Guayabero
4. Muisca
5. Sanuma
6. Makushi
7. Tiriyó
8. Cofán
9. Tariana
10. Nadëb
11. Shuar
12. Shipibo-Konibo
13. Mẽbengokre
14. Capanahua
15. Apurinã
16. Huallaga Quechua
17. Wari'
18. Yanesha'
19. Coastal Peruvian Quechua
20. Mekens
21. Kwaza
22. Kipeá
23. Cavineña
24. Baure
25. Movima
26. Nambikuara
27. Uchumataqu (Uru)
28. Aymara
29. Mosetén
30. Yurakaré
31. Pilagá
32. Mapuche (Mapudungun)
33. Yahgan

1. What is subordination?

Probably the most traditional view of subordination is to regard it as a construction in which two (or more) clauses are combined with each other in such a way that one clause (the subordinate clause) is a constituent of the other (the main clause). Within this view of subordination, there are three subtypes of subordinate clauses: complement clauses, which function as arguments of the verb of the higher clause, relative clauses, which function as modifiers of a noun in the higher clause, and adverbial clauses, which modify the verb of the higher clause or the higher clause in its entirety.

For a comparative perspective on subordination, this traditional definition poses problems in the sense that not all languages have these structures. One solution to this problem is to simply exclude languages that do not have them. However, if one language is identified as having, for instance, subordinate purpose clauses and another language is identified as not having those structures, the question almost immediately arises how the latter language expresses a purpose event. As we will see in the contributions in this volume, languages may employ very different strategies to encode the same functions. The question what strategies different languages use to encode subordinate events provides a more fruitful basis for a volume where several languages are addressed, such as this one. This approach to subordination, however, makes the question 'What is subordination?' harder to answer.

In their discussion of complex sentences, Van Valin & LaPolla (1997: 441) recognize two crucial questions for the study of this phenomenon, both of which have given rise to substantial controversy and divergence of opinions:

1. What are the units involved in complex sentence constructions?
2. What are the relationships among the units in the constructions?

With regard to the first question, Van Valin & LaPolla (ibid. 442) remark that "all theories agree that the clause is a possible unit in complex sentence formation. Where they differ, however, is in how to characterize the subclausal units". In the Role and Reference Grammar approach that the authors take, predicative elements can combine to form complex sentences at different levels. In this way, complex sentences may also be monoclausal, but with complex, multi-verb predicates, like serial verb constructions, secondary predications, auxiliary verb constructions, etc.

Another issue of debate concerns conversion (category-changing derivation) as a strategy to encode subordinate events, like nominalizations and the use of participial verb forms. The question here, too, is: are these examples of biclausal structures or are they simple constructions involving a verb and a noun or adjective? Nominalization in particular is a common strategy that South-American languages use in the same places where other languages have subordinate clauses.

Excluding these structures would lead to an enormous reduction of the comparative potential. A way to compromise between the stringent clausal approach and to still take other strategies into consideration is to regard them as alternative expressions of semantically equivalent functions, and thus comparable. This approach is taken by Dixon (2006) in his typological overview of complementation. He makes a difference between complement clauses and complementation strategies. Complement clauses are defined on the basis of four criteria, the first of which addresses the clausal status of complement clauses: a complement clause "has the internal constituent structure of a clause, at least as far as core arguments are concerned. That is, S, A, and O (or other) arguments, if not omitted by a grammatical rule associated with a particular complement clause construction, should be marked in the same way as in a main clause (…) and have much the same properties" (ibid.:15). Not all languages have complement clauses, however, so these languages resort to alternative complementation strategies to fulfill the same function. In the next paragraph we will go into some more detail with regard to dominant strategies found in South-American languages.

Van Valin & LaPolla's second question concerns the continuum between coordinate and subordinate relations. The two ends of the continuum can, generally speaking, be stated in terms of symmetry: coordinate relations are symmetrical, subordinate relations asymmetrical. However, authors differ, sometimes considerably, in how to characterize this (a)symmetry.[1] This is mainly due to the multifacetted nature of subordination. We can discern four major lines of thought, each emphasizing a different aspect of subordination as the defining one.

The first was already referred to in the opening paragraph of this section as 'the traditional view'. It is this perspective that has been dominant for instance in generative approaches to subordination (cf. Haumann 1997). In this view the asymmetry of subordinate relations is syntactic in nature: subordinate clauses are embedded in higher clauses, as constituents, whereas coordinate clauses are adjoined.

Another approach to the asymmetry question, often an additional criterion to some other perspective, is to take *grammatical dependency* as a crucial characteristic for subordination. The idea behind this is that languages somehow signal subordination, by means of subordinating conjunctions, non-finite verb forms, nominalization, participial verb forms, etc. The opposition between grammatically independent and grammatically dependent clauses is often termed balanced versus

1. In fact, Van Valin & LaPolla (1997) argued for the need of a third type of relation: cosubordinate, in which a semantically coordinate clause is represented by a morphosyntactically dependent form.

deranked (Stassen 1985; see also Cristofaro 2003). The advantage of this approach is that it does not impose a pre-established notion of what subordination is, which is a check against the ever-present threat of Euro-centrism in cross-linguistic studies. There are, however, also serious problems with this approach, cf. Cristofaro (2003).

A third approach to asymmetry in subordination, associated with more cognitively-based approaches to language (cf. especially Cristofaro 2003) is to highlight the difference between non-subordinate and subordinate clauses in terms of their *pragmatic profile*. In this view the difference between subordinate and non-subordinate clauses is the fact that the former are pragmatically non-asserted, and dependent on the main event for their pragmatic profile. (ibid.: 29–35).

On a semantic level, finally, we can also make a distinction between symmetrical and asymmetrical relations. Blühdorn (2008) argues that semantically symmetrical connections are indifferent to syntactic ordering, whereas semantically asymmetrical connections are not, in the sense that the meaning changes once the order of the two elements changes. He contrasts the following sentences:

(1) a. Mary went to the library, and she began to feel hungry
b. Mary began to feel hungry, and she went to the library

Changing the order changes the meaning of this complex construction, so Blühdorn concludes that morphosyntactic and semantic subordination do not necessarily align (cf. also Culicover & Jackendoff 1997). This perspective on subordination stresses semantic characterizations of types of subordinate relations (temporal, causal, purpose, perceptual, cognitive, etc.). This approach is taken for instance in several contributions to the WALS, cf. e.g. Haspelmath 2005; Cristofaro 2005.

A major problem in trying to integrate these four approaches is that they may be incompatible in a number of cases. Matthiesen and Thompson (1988) set adverbial clauses apart from complement clauses and relative clauses, the former being an example of a clause combination, the latter two of embedding. As one of their arguments, Matthiesen & Thompson point to the fact that adverbial clauses can combine with more than one main clause, so that "there is no single clause that the [adverbial clause] could be an embedded constituent of" (p. 280). This is shown in the following example (Matthiesen & Thompson 1988: 281, taken from Longacre 1970):

(2) [While Ed was coming downstairs], Mary slipped out the front door, went around the house, and came in the back door.

According to the syntactic criterion, then, the temporal clause does not count as subordinate. However, for the other approaches to subordination mentioned above it does. As it is marked with a subordinating conjunction marker, it does count as a subordinate clause for the grammatical dependency approach (the defining criterion being that the clause cannot be used independently). For the pragmatic presupposition approach, example (2) is also an example of subordination, the test

being that a sentential negation does not apply to the temporal clause. Semantically, finally, this is also a case of subordination, as changing the order also changes the meaning.

Further examples can be found that should, strictly speaking, count as subordination for one approach, but not for the others. For instance, the clause [and bought a carton of milk] in example (3) is dependent on the main clause for the interpretation of its subject, and cannot stand on its own. Therefore it should be considered subordinate for the grammatical dependency approach, whereas it is a coordinate construction for the other approaches. Tags are one of the ways to prove pragmatic assertedness, and therefore non-subordination in Cristofaro's (2003) approach. In example (3b), the tag question applies to the clause between brackets, which should therefore be considered to be non-subordinate in this approach, whereas in the other approaches, it counts as a subordinate clause (see Cristofaro 2003 for an elaborate discussion of these sentences).

(3) a. I went to the supermarket [and bought a carton of milk]
b. I think [that, frankly, he hasn't got a chance, has he?]

Given these contradictions, we might say that subordination is a gradable multifacetted concept. This is in line with observations that the boundary between subordination and coordination is rather fuzzy (cf. Quirk et al. 2004 [1985], reprinted in Aarts et al. 2004) and that it involves a complex interplay between different levels (cf. Lehmann 1988).

A way to merge the different views on asymmetry, and still do justice to the observation that subordination is a gradable concept is to approach the definition in terms of canonical typology (cf. Corbett 2005). In canonical typology, a linguistic category is defined by a multi-dimensional space created by a number of non-conflicting criteria. The most canonical form of that category is where all these principles converge. So a canonical subordinate clause in terms of its relation to a superordinate clause is syntactically embedded rather than adjoined, pragmatically presupposed rather than asserted, and morphosyntactically dependent rather than independent. A canonical coordinate clause is assumed to have the exact opposite characteristics. This is indicated in Figure 1.

Subordination ◄——► *Coordination*	
Syntactically embedded	Syntactically adjoined
Morphosyntactically dependent	Morphosyntactically independent
Pragmatically presupposed	Pragmatically asserted
Semantically dependent	Semantically independent

Figure 1. Asymmetric versus symmetric clause combinations: the continuum of subordination versus coordination

This set-up creates a space between subordination and coordination that can be defined in terms of deviations from the four symmetry parameters. In this space we find e.g. adjoined adverbial constructions, co-subordinate constructions, paratactic subordinate constructions.

We now turn to a survey of the most dominant subordination strategies found in the indigenous languages of South America.

2. The discovery of subordination strategies in South America

When Fray Domingo de Santo Tomás started to describe the language of Peru, Quechua, in the 16th century, he was confronted with the problem that the standard mechanism that he was familiar with for forming subordinate clauses, the use of conjunctions, formed only a minor part of the grammatical machinery of the language under study. In fact, participles, gerunds, and derivational affixes were much more important. A number of different forms are described in the chapters seven, eight, nine, and ten of his grammar (1560), the first grammar published of a South American language, and in fact a grammar antedating the grammars of languages like English (the first grammar is William Bullokar's *Pamphlet for Grammar* in 1586) and Dutch (the first, anonymous, grammar of Dutch, *Twe-spraack van*de *Nederduitsche letterkunst* [Dialogue on the grammar of Dutch], was published in 1584) by more than twenty years. The participles and gerunds include a variety of verbal suffixes, discussed in some detail.

Nominalizers. The participial suffixes or nominalizers mentioned are agentive *-c* (*-q* in Peru, *-k* in Ecuador), as in (4), resultative *-sca* (*-sqa* in Peru, *-ska* in Ecuador), as in (5), future oriented *-nga* (not present in all current varieties), as in (6), and infinitive *-i* (*-y* in all varieties), as in (7):[2]

(4) Coastal Peruvian Quechua [Quechuan]

*mico-**c*** *ca-ni* 'present active participle' > participant
eat-AGN be-1SG
'I eat (lit. I am eater)'

(5) Coastal Peruvian Quechua [Quechuan]

a. *ñoca* *coya-**sca**-m* *ca-ni* 'preterite passive participle'
I love-NLZ-AFF be-1SG > participant, result
'I am loved.'

2. For reasons of consistency, some of the original glosses of the examples have been adapted. A list of abbreviations can be found at the end of this paper.

b. *ñoca micu-**sca**-m ca-ni*
I eat-NLZ-AFF be-1SG
'I have already eaten'

c. *coya-**sca**-nchic-cona*
love-NLZ-AFF-1INCL-PL
'things loved by us (incl.).'

d. *can-cona-p rura-**sca**-yqui-chic pirca*
you-PL-GEN make-NLZ-2-2PL wall
'the wall made by you (pl.)'

(6) Coastal Peruvian Quechua [QUECHUAN]

*coya-**nga**-yqui-chic-cama* future active participle > future event
love-NLZ-2-2PL-until
'until you (pl.) will love'

(7) Coastal Peruvian Quechua [QUECHUAN]

a. *micu-**i** alli* 'infinitive' > event
eat-INF good
'to eat is good'

b. *ricu-**i**-pac alli ca-ni*
see-INF-BEN good be-1SG
'I am good for seeing'

It is surprising that the fifth Quechua nominalizer, unrealized or potential *-na*, was not mentioned by Domingo de Santo Tomás, either because its functions had been usurped by *-nga* in the dialect he was describing, a coastal Quechua II variety, or because he did not notice it. In any case, a distinction in the domain of nominalizers between agentive, infinitive, resultative, and future oriented is very common in many languages of South America.

Switch reference markers. The gerunds referred to by Domingo de Santo Tomás as ablative gerunds correspond to what are currently called adverbial switch reference clauses. Examples given include:

(8) Coastal Peruvian Quechua [QUECHUAN]

a. *ñoca alli ca-**spa*** same subject adverbial
I good be-ss
'when I am good'

b. *cam alli ca-**spa***
you good be-ss
'when you are good'

(9) Coastal Peruvian Quechua [Quechuan]

a. *ñoca alli ca-**pti**-i* different subject adverbial
I good be-SS-1SG
'when I am good'

b. *cam alli ca-**pti**-iqui*
you good be-DS-2SG
'when you are good'

As a matter of fact, Domingo de Santo Tomás does not distinguish the two types of markers in terms of switch reference, but he is correct in noting that the same subject marker *-spa* ordinarily does not take person marking, while the different subject marker *-pti* does require person marking. Although no systematic study has been done of this yet, it is clear that adverbial clauses marked for switch reference are very frequent in some of the languages of South America, perhaps regionally determined.

Derivational suffixes. A third type of verbal suffix that struck the attention of the Dominican friar were the derivational suffixes, particles on the verb that cause semantic, though not syntactic, subordination. Among those that he noticed we find *-chi* 'causative', *-ycacha* 'andative', *-na* or *-naya* 'desiderative', *-ya* 'transformative', and *-mu* 'cislocative':

(10) Coastal Peruvian Quechua [Quechuan]
*rura-**chi*-* *micu-**chi*-* cause
make-CAUS- eat-CAUS-
'cause to make' 'cause to eat'

(11) Coastal Peruvian Quechua [Quechuan]
*rima-**ycacha**-ni* *pulla-**ycacha**-ni* walk around
talk-walk-1SG play-walk-1SG
'I walk around talking.' 'I walk around playing.'

(12) Coastal Peruvian Quechua [Quechuan]
*micu-**na**-ua-c* *upia-**naya**-ni* feel like
eat-DES-1SG.O-AGN drink-DES-1SG
'I feel like eating.' 'I feel like drinking.'

(13) Coastal Peruvian Quechua [Quechuan]
*chiri-**ya**-ni* *guayna-**ya**-ni* become
cold-INCH-1SG youngster-INCH-1SG
'I get cold.' 'I am turning into a youngster.'

(14) Coastal Peruvian Quechua [Quechuan]
*micu-**mu**-ni* *upia-**mu**-ni* come
eat-CIS-1SG drink-CIS-1SG
'I come to eat.' 'I come to drink.'

Many languages have a range of these affixes which semantically correspond to higher predicates.

Thus some of the main contours of the subordination strategies of the South America were noted already 450 years ago in the very first Western grammar of a language from this continent, a remarkable feat. As will become clear in the next section, Peruvian Quechua may have appeared unusual in the eyes of Fray Domingo de Santo Tomás, within the context of the continent Peruvian Quechua is one of the crowd.

3. Major patterns in South-American subordination strategies

Subordination strategies in the languages of South America are very diverse, as they are in any continent. Nonetheless, some patterns are particularly frequent, as noted already in the *World Atlas of Linguistic Structures* (Haspelmath et al. 2005). We can distinguish a very broad, three-way distinction in subordination strategies in South America.[3]

1. Nominal strategies: the subordinate verb is nominalized, possibly with the retention of (some) verbal categories.
2. Verbal strategies: clause combination of two more or less finite structures, often with a (bound) dependency marker.
3. Integrating strategies: the two predicative elements are grammatically integrated, resulting in multi-verb constructions, verb compounds, and affixing.

Probably the most common subordination strategy in South-American languages is **nominalization**. It is mentioned as one of the Amazonian traits by Dixon & Aikhenvald (1999: 9), but it is certainly as characteristic for the Andean languages. In terms of subordination strategies, a three-way distinction of nominalizations

3. Given the high number of morphologically complex languages, studies of South-American languages have traditionally focused heavily on morphology, and syntactic studies have so far lagged somewhat behind. The following overview of the major subordination strategies found in the continent should therefore be taken as a preliminary sketch of the patterns found. Future research will undoubtedly yield a more complex picture. One of the authors, Rik van Gijn, is currently carrying out a project funded by NWO (Netherlands Organization for Scientific Research) called 'Subordination strategies in South America', which will hopefully contribute to establishing a richer picture.

can be made: (i) participant nominalizations, which are functionally equivalent to relative clauses; (ii) event nominalizations, used in particular for complementation, but also for relative and adverbial relations (often in combination with case markers or adpositions); (iii) participial forms in which the nominalizer also encodes a verbal property – typically tense – that are used in relative relations and adverbial relations (converbs), as well as in purpose complements.

Most South-American languages seem to have *participant nominalizations* that are functionally equivalent to relative clauses (often headless). This subordination strategy is present in most of the large families, e.g. Quechuan languages (Adelaar, with Muysken 2004: 226), Aymara (ibid.: 288), Cariban (Meira 2006; Gildea 1998), Tupí-Guaraní (Jensen 1999: 159–60), Macro-Jê (Rodrigues 1999: 194). The most common types of participant nominalization are core (S/A/O) participant nominalization. Instrument, place nominalizations and 'objective' nominalizations (see Comrie & Thompson 2007) also occur. Cariban languages encode S, A, and O nominalizations separately, and for each of these participant nominalizations, they distinguish actual versus 'habitual', as can be seen in the following examples from Tiriyó (Meira 1999: 170):

(15) Tiriyó [Carib]

a. *enpa-ne*
teach-ACTN
'someone's teacher'

b. *enpa-to-n*
teach-A.POT-NLZ
'Someone capable of teaching, someone who teaches well.'

The core participant nominalizations often interplay with alignment systems. Rodrigues (1999: 194), based on Mamiani (1698), mentions the extinct Macro-Jê language Kipeá, which has an absolutive nominalizer:

(16) Kipeá [Macro-Jê, Karirí]

a. *di-te-ɾi*
ABS-come-NLZ
'the one who comes'

b. *di-pa-ɾi*
ABS-kill-NLZ
'the one that was killed'

In Movima (Haude 2006; this volume), verbs can appear as the heads of NPs without any overt nominalizer. The denotee of these 'nominalizations' is – like in Kipeá – the absolutive participant (as in 17a). But in combination with the

inverse marker, the nominalized predicate refers to the agent of the transitive event (Haude 2006: 299), as in (17b):

(17) Movima [Unclassified]

a. *do:koy majni nokowa ł rim-eł-na*
good my.child right.now 1 buy-appl-dr
is yey-na=n
art.pl want-dr=2
'Good, my child, now I'll buy the ones you want.'

b. *usko senyor kuł lawajes-kay*
pro.m.a sir art.m.a remedy-inv
'It was the lord who healed me.'

Possibly related to the nominalization strategies for relative clauses found in many languages is the possibility of **internally headed relative clauses**, whether in nominalized or verbal relative clauses. This remarkable feature of relative clauses was not noted by Domingo de Santo Tomás but is present in Quechua. Thus (5d) above can also take the form of (18):

(18) Coastal Peruvian Quechua [Quechuan]

*can-cona-p pirca rura-**sca**-yqui-chic*
you-pl-gen wall make-nlz-2-2pl
'the wall made by you (pl.)'

This feature has been noted (though not always in combination with nominalizing morphology) in Mapuche, Chipaya, Yanesha', possibly Páez, Muisca, Makushi, Capanahua, Nadëb, Sanuma, possibly Wari', and Guayabero, Cavineña, and Mẽbengokre (see Salanova, this volume). However, the data are not always easy to interpret. This clearly needs much more work.

Action or *event nominalizations* can function as complements in many languages, examples here are from Pilagá (Vidal 2001: 356)[4] and Huallaga Quechua (Weber 1989: 289):

(19) Pilagá [Guaycuruan]

se-take da' y-onta-naʃak
1-want cmp 1poss-work-nlz
'I want to work.'

4. Vidal (2001: 378) regards the complementizer *da'* to be recent innovation in Pilagá, as it is not a Guaycuruan feature.

(20) Huallaga Quechua [Quechuan]

mucha-y-ta *muna-:*
kiss-inf-acc want-1
'I want to kiss her.'

Event nominalizations in South-American languages often allow for the retention of verbal morphology on the nominalized predicate, as is shown in this example from Mapuche or Mapudungun (Smeets 2007: 207):

(21) Mapuche or Mapudungun [Araucanian]

chew *mün* *ngilla-ka-pe-fu-ye-m* *fende-nge-y-Ø*
where 2pl.poss buy-fac-prox-ipd-const-ivn sell-pass-ind-3
'[the place] where you (pl) used to do your shopping has been sold'

Another type of verbal categories retention strategy is the use of what might perhaps be called *participial verb forms,* where nominalizers also encode verbal categories, in particular tense. Participles are particularly common in Andean languages (see e.g. Adelaar, this volume and Muysken, this volume for Quechuan languages), and also in Cariban languages. The following example is from Aymara, involving the infinitive nominalization *-nʸa* that can yield a future interpretation (Adelaar with Muysken 2004: 289):

(22) Aymara [Aymaran]

yati-qa-nʸa-taki-w *hut-ta*
know-down-inf-ben-aff come-1s
'I have come to learn.'

More verbal structures are also found in subordinate clauses in South America. An often occurring construction is the juxtaposition of two more or less finite structures (in terms of participant indexing and TAM marking), one of which carries a **bound subordinator**. Next to nominalization, this is one of the main subordination strategies of Arawakan languages (Aikhenvald 1999: 99), and they also occur for instance in Chibchan, Tupi-Guaraní, Panoan, Tacanan, and Tucanoan languages. It is here exemplified by the Chocoan language Northern Embera (Mortensen 1999: 117):

(23) Northern Embera [Chocoan]

anancio-ra *pʰiratrɯ-pheda* *pʰata* *o* *b-e-sʰi-a*
Anancio-abs get.up-after plantain make be-perf-pst-decl
'After Anancio got up, he began to make dinner.'

A conspicuous phenomenon found across language families in South America is the marking of **switch-reference** on (usually bound) subordinators. This phenomenon is found as a highly salient and important part of grammar in a number of

different languages and language families in Colombia, Ecuador, Peru, Bolivia, and Brazil. Among the language families that have subordinators marked for switch reference are Chocoan, Tucanoan, Paezan, Barbacoan, Quechuan, and Panoan, as well as in a number of isolate languages like Yurakaré (Van Gijn, this volume), Cofán (Fischer & Van Lier, this volume), and Kwazá (Van der Voort 2004). There are furthermore a number of languages and language families that have less salient or less developed, or decaying switch-reference systems, such as Aymara (see Adelaar, with Muysken 2004: 275), Uchumataqu (see Hannß, this volume), and Cholón (see Alexander-Bakkerus, this volume). This type of switch reference is very likely to have diffused through language contact (see Aikhenvald 2002 on the spread of Tucanoan switch-reference systems to Arawakan Tariana). Panoan languages have complex switch-reference systems that include transitivity concord: there are different markers for A-A coreference and S-S coreference (coded on dependency markers indicating simultaneous prior and subsequent events). The following pair of examples illustrates the S-S (*-ax*) and A-A (*-xon*) coreference markers for previous events (Valenzuela 2003: 415):

(24) Shipibo-Konibo [Panoan]

a. *… bachi* *meran* *jiki-ax* *Ashi*
mosquito.net inside enter-PSS Ashi:ABS
manó-res-a *iki* *moa* *ka-ax*
disappear-just-PCP AUX already go-PSS
'Ashi entered into the mosquito net and disappeared, after leaving (for the upper world).

b. *jawen* *tapon* *bi-xon* *kobin-'a-xon* *naka-kati-kan-ai*
3POSS root:ABS get-PSA ONOM:boil-do.TR-PSA chew-REMPST-PL-INCPL
'After getting its (i.e. the *yotokonti* plant's) root and boiling it, they chewed it.'

Free subordinators certainly also occur, yielding more European-style subordination. Tupian languages, for instance, often have subordinating particles (see for instance Mekens, Galucio, this volume). It is exemplified here with the Bolivian language Mosetén (Sakel 2004: 435):

(25) Mosetén [Mosetenan]

Jam-ra' *mö'* *soñi-tye-te* *khäki-rä'* *anik*
NEG-IRR 3SG.F man-VSM-APPL.3M.O because-IRR EMPH
min-min *kinakdye'* *wodyo'* *kishri-i*
ASSOC-RED jaguar on.four.feet paint-VSM.M.S
'She cannot have courage (to see him), because she really is among jaguars, on four feet, painted.'

In many languages subordinating conjunctions have a deictic source. An example from the Shuar (Jivaroan) involves the deictic element *nu* (example from Karsten 1935: 554 cited from Adelaar with Muysken 2004: 446):

(26) Shuar [Jivaroan]

noa, ihérma-sa puhú-ma ***nu,*** *namán-ki yúo-ca-ma*
woman fast-SUB be-PERF that meat-DEL eat-NEG-PERF
'The woman, while she was fasting, did not eat meat.'

These deictic subordinators also occur in the southern Peruvian varieties of Quechua.

Typically, many conjunctions from colonial languages have been incorporated into the Amerindian languages of the Americas. This has been documented for Meso-America in Suárez (1983) and Stolz and Stolz (1996), but further south there are striking examples as well, as in the following examples from Yahgan (cited in Adelaar with Muysken 2004: 576–7 from Golbert de Goodbar 1977: 57):

(27) Yahgan [Unclassified]

háy kátak-óa ***snÁtin*** *pÁlAxána* [cf. Eng 'it is nothing']
1SG go.out-FUT although rain
'I will go out although it rains.'

(28) Yahgan [Unclassified]

háy kúru ***téke*** *sá atáma* [cf. Sp 'de que']
1SG want that 2SG eat
'I want you to eat.'

Unmarked, paratactic clauses also occur in a number of languages, as is shown here for the North-Arawakan language Apurinã (Facundes 2000: 600):

(29) Apurinã [Arawakan]

n-etika-ru [kuku muteka-nãnu-ta ĩtopa
1SG-see-3M.O man run-PROG-VBL jungle
'I saw the man running into the jungle.'

Serial verb constructions have not been studied so far in detail for the languages of South America, with the exception of a few authors like Aikhenvald (2006), who has explored these constructions in detail in Tariana. A typical example is:

(30) Tariana [Arawakan]

mawina-nuku wasã [***wheta*** ***wa-hña***]
pineapple-TOP.NON.S/A let's take.1PL 1PL-eat
'Let's take and eat the pineapple.'

Here two verbs are chained together, sharing all TMA and polarity values. Serial verb constructions may also be used as complementation strategies (in terms of

Dixon 2006). An example comes from Yurakaré (Van Gijn 2006: 298, see also Van Gijn, this volume):

(31) Yurakaré [Unclassified]
të-yle *lee-shta-y=naja* *së*
1sg.icom-know read-fut-1sg.s/a=dsc 1sg.pro
'I am going to learn how to read.'

Serial verb constructions seem to be mostly an Amazonian feature, and by and large (apart from Chibchan) absent in Andean languages. SVCs are found in some of the major families of Amazonia, like Tupi-Guaraní, Macro-Jê, and North-Arawakan,[5] as well as in a number of smaller families, like Tucanoan, Guaycuruan, Makuan, and isolate languages, such as Yurakaré, Movima, and Uchumataqu (see Aikhenvald 2011, for an overview of multi-verb constructions in the Americas).

One step further in the integration of the predicates is to have **verbal compounds**. Movima phasal relations are encoded like this (Haude 2006: 454):

(32) Movima [Unclassified]
jayna *iń* *ba:-tijkarim-kakał*
dsc 1intr finish-work-phas
'I have already finished working.'

A final strategy that we shall briefly mention here is **affixing**. It is particularly common for South-American languages to have causative and desiderative affixes. Haspelmath (2005), studying want-complements, mentions 14 languages in South America (about half) that have a verbal affix to encode want-constructions, and another two that have a desiderative particle. As an example, consider Nambikuara (Kroeker 2001: 38):[6]

(33) Nambikuara [Nambikuaran]
Ai³-te³l-a¹-wa²
go-aux.imm-1sg.vis.pres-impf
'I want to go'.

The picture sketched here is very rough, and of many of the phenomena described above we do not know the geographical extent yet. Much more work is needed in order to obtain a fuller picture. The contributions in this book can hopefully function as a first step towards filling that gap.

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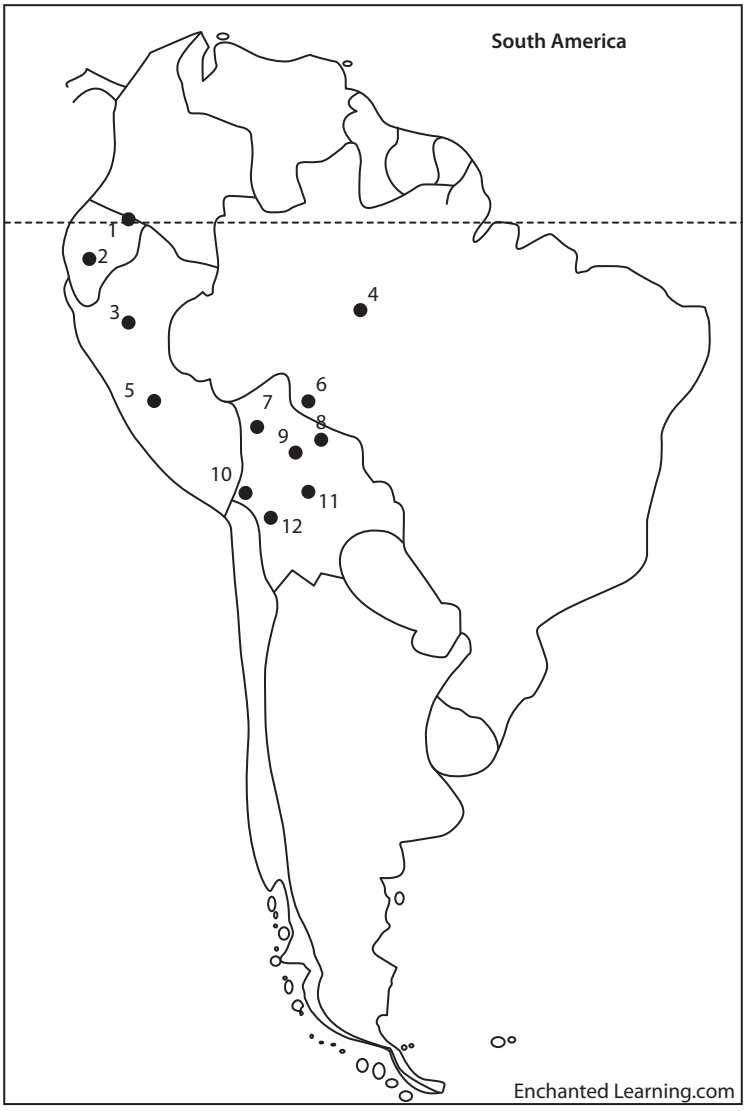
5. Aikhenvald (2011) mentions that SVCs are not a feature of South Arawakan languages, but Baure (Danielsen, this volume), a South Arawakan language, does have them.

6. The superscript numbers are tone marks: 1 for falling, 2 for rising, 3 for low level (Kroeker 2001: 2).

4. The contributions in the present volume



Map 2. Approximate locations of the languages discussed in the contributions to the present volume

1. Cofán
2. Ecuadorian Quechua
3. Cholón (†)
4. Mẽbengokre
5. Tarma Quechua
6. Mekens
7. Cavineña
8. Baure
9. Movima
10. Uchumataqu (Uru) (†)
11. Yurakaré
12. Chipaya

The contributions in the present volume illustrate subordination phenomena in languages from three major regions of the South American continent: the Amazon basin, the Andes, and the "foothill" region that lies in between these two. The Amazon basin is represented by Mekens (Tupían) and Mẽbengokre (Jê) in the Brazilian Amazon area, and by Baure (Arawakan), and Movima (isolate), and Cavineña (Tacanan) in the subtropical savannahs of Northern Bolivia. Yurakaré (isolate, Bolivia), Cholón (Cholonan, Peru), and Cofán (isolate, Ecuador/Columbia) can be considered as belonging to the Andean foothill region. The Andes region is represented by Ecuadorian Quechua and Tarma Quechua (Peru) as well as by the Uru-Chipayan languages Utumachaqu (Bolivia/Peru) and Chipaya (Bolivia). In its organization, the articles in this book start out from in the Brazilian Amazonian area, move southwards through the subtropical savannahs, take a turn north along the foothills and then from Ecuador back through the Andean highlands, ending in southern Bolivia.

Galucio discusses adverbial clause modification in **Mekens** (also known as Sakurabiat), a language of North-Western Brazil that belongs to the Tupari branch of the Tupí family. Adverbial constructions in Mekens are typically postpositional phrases containing a deverbal noun or a demonstrative. The latter, which replace an adverbial clause anaphorically, link two structurally independent clauses, one of which describes a subordinate event, and thus seem to grammaticalize into subordinating morphemes. Other strategies for adverbial modification in Mekens include the use of an auxiliary verb or of a verb derived from a demonstrative; a serial verb construction that creates purpose adverbials. The adverbial constructions in Mekens express temporal relations, conditions, causes and purposes, the distinctions being often apparent only from the context.

Salanova analyzes the relative clauses of **Mẽbengokre**, a Jê language from Eastern Brazil. Mẽbengokre relative clauses are generally internally headed, and they are most naturally analyzed as noun phrases. With their ergative pattern, their structure is identical to complement and adjunct clauses. Counter to analyses which regard relative clauses as being necessarily adjoined to an external head, Salanova provides evidence that this is not true for relative clauses in Mebengokre, where the head is always internal.

The three languages of the subtropical savannahs treated in this volume, Baure, Movima and Cavineña, are all spoken in the Beni department of Bolivia, but are not related to each other and do not seem to display contact-induced phenomena. **Danielsen** describes the subordination strategies in the Arawakan language **Baure**, which show a gradual difference between coordination and subordination. She focuses on the most clearly marked dependent constructions, relative and complement clauses, which both involve a nominalized predicate. The relative clauses involve participant nominalization and are typically headless; they are analysed

as relative clauses, rather than as deverbal agentive nouns, because they can also modify nouns. Complement clauses differ from relative clauses in that they denote an event rather than an event participant, and they are generally not found as modifiers of a head noun. Depending on the context, complement clauses are easily interpreted as adverbial clauses, which (in line with other contributions in this volume) shows that the borderlines are not as easily drawn in individual languages as the literature sometimes seems to suggest.

Guillaume describes tail-head linkage in the Tacanan language **Cavineña**. Tail-head linkage, extensively discussed for languages of the Pacific, is a strategy for strengthening discourse coherence. It consists in repeating at least the predicate of a sentence in an adverbial clause at the beginning of the following sentence. Guillaume presents the phenomenon in a cross-linguistic perspective and illustrates it extensively with the Cavineña data, showing how it is applied in different types of subordinate clauses – relative clauses and adverbial clauses with same-subject or different-subject marking.

Haude discusses complement and adverbial clauses in **Movima**, an isolate of Amazonian Bolivia. While these clauses basically have the form of noun phrases, they are marked more consistently for categories that are usually considered typically verbal (tense, person, lexical aspect), than main-clause predicates. This phenomenon arises from the fact that in Movima, time reference is primarily a feature of the noun phrase, nominal possessive marking is identical to person marking on transitive verbs (intransitive person marking not being obligatory), and the two nominalizing morphemes formally distinguish existential states from other types of situations. Furthermore, these noun phrases clearly establish reference to situations, whereas referential phrases containing underived verbs refer to event participants.

Van Gijn demonstrates the correlation between the use of the five different subordination strategies in **Yurakaré** and the degree of conceptual synthesis between a main and a dependent event. The main parameters consist in the degrees of temporal integration and participant integration. The most integrated events, characterized by shared time reference, are expressed by serial verb constructions. Different levels of less integrated events are expressed by less tightly knit constructions. The general pattern is that an increase of inflectional possibilities of the subordinate verb correlates with an increase of the conceptual independence of the different events, either in terms of participant reference or in terms of time reference.

Based on a missionary grammar of an extinct language, **Alexander-Bakkerus** classifies the markers of subordinate predicates in **Cholón** as either nominalizing or non-nominalizing subordinators. Nominalizing subordinators derive nouns which can take case-marking, some of which can also appear as simple nominals outside the subordinate construction. Non-nominalized subordinate predicates,

in contrast, do not take case marking and cannot occur outside the subordinate construction. All subordinating morphemes derive noun-like forms that cannot be marked for TAM and that can function as subject or object of a clause. Alexander-Bakkerus presents Cholón complement, adverbial, and relative clauses.

Subordinate clauses in **Cofán**, discussed by **Fischer** and **van Lier**, differ from main clauses in their strict, predicate-final constituent order. Furthermore, they contain either overt morphological marking of the predicate, which indicates a deranked status, or a conjunction, which indicates balanced status of the subordinate clause. This article not only presents the details of the different subordinating strategies in Cofán, but also discusses them in the light of current typological studies of subordination, pointing out general issues like the applicability of finiteness criteria in a language with little verbal inflection.

Muysken analyzes nominalized relative clauses in **Ecuadorian Quechua** (also known as Quichua). There are three different nominalizers indicating different tenses (past, present, future), and not all of them can serve subject and object relativization likewise. Therefore, a choice has to be made to either specify tense or grammatical relation. Muysken schematizes the patterns found in different dialects within an Optimality Theoretic account, concluding that the priority the northern Ecuadorian Quechua varieties give to tense instead of grammatical relations may have been a historical innovation.

Adelaar describes a participial-clause construction of **Tarma Quechua**, a language of Central Peru. Unattested in other varieties of Quechua, the participial-clause construction is headed by a participle and, unlike the more common dependent clauses in Tarma Quechua, has no explicit formal or semantic connection to the main clause. Typically, it describes a situation preceding or accompanying the action described in the main clause, but the semantic connection between the dependent clause and the main clause can only be identified through the context. Although it lacks case marking, the presence of a participle and the semantic flexibility make this construction reminiscent of the absolute constructions (e.g. the Latin "ablativus absolutus") in classic Indo-European languages.

Uchumataqu, like Cholón, is an extinct language. Based on secondary sources, **Hannß** describes the different subordination strategies in this language of the Titicaca region and discusses them in functionally-oriented typological context. She furthermore compares the Uchumataqu data to descriptions of subordination in the related language **Chipaya**, concluding that unlike in Chipaya (and other living languages of the Andes), subordination in Uchumataqu is carried out by means of analytic rather than synthetic constructions.

Undoubtedly the papers in this volume only scratch the surface of what will turn out to be a very rich and complex area of research. We hope, however, that they may serve as a first collection of trails into this domain.

Abbreviations

AGN	agent nominalization
A	subject of transitive verb
ABS	absolutive
ACC	accusative
ACTN	action nominalization
AFF	affirmative
APPL	applicative
ART	article
ASSOC	association marker
AUX	auxiliary
BEN	benefactive
CAUS	causative
CIS	cislocative
CMP	complementizer
CONST	constant feature
DECL	declarative
DEL	delimitative (just, only)
DES	desiderative
DOWN	downwards
DR	direct
DS	different subject
DSC	discontinuative
EMPH	emphasis
F	feminine
FAC	factitive
FUT	future
GEN	genitive
ICOM	involuntary comitative
IMM	imminent
IMPF	imperfective
INCH	inchoative
INCL	inclusive
INCPL	incompletive
IND	indicative
INF	infinitive
INTR	intransitive
INV	inverse
IPD	impeditive
IRR	irrealis
IVN	instrumental verbal noun
M	masculine
NEG	negation
NLZ	nominalizer
NON.S/A	non-subject
O	object
ONOM	onomatopoeia
PASS	passive
PCP	completive participle
PERF	perfective
PHAS	phasal aspect
PL	plural
POSS	possessive
POT	potential
PRES	present
PRO	pronoun
PROX	proximity
PSA	previous same-subject (transitive)
PSS	previous same-subject (intransitive)
PST	past
RED	reduplication
REMPST	several years ago past
S	intransitive subject
SS	same subject
SUB	subordinator
TOP	topic
TR	transitive
VIS	visual evidence
VSM	verbal stem marker

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Subordinate adverbial constructions in Mekens*

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This article discusses the morphosyntactic strategies employed for forming subordinate adverbial constructions in Mekens, including the specific uses of valence-changing and other derivational morphemes, such as nominalizers and verbalizers. Generally speaking, adverbial constructions in this language take the form of postpositional phrases and derived verb phrases based on nominalized verb forms, although other strategies are also found. Data from both natural discourse and elicitation illustrate the major types of adverbial modification which include those expressing information about time, condition, cause, and purpose of related events in the proposition. Our goal is to contribute to the knowledge of the typological characteristics of the Mekens language, and at the same time permitting its comparison with genetically related languages and those of the region.

1. Introduction

The language of the Sakurabiat people has been traditionally referred to in the literature as Mekens, and more recently also as Sakurabiat referring to the self denomination of the group. In this work I use the term Mekens to refer to their language. Mekens is one of the five surviving languages that compose the Tupari branch of the large Tupí language family, together with the Akuntsun, Wayoró, Makurap, and Tupari languages, all of them spoken in the State of Rondônia, in the northwestern part of Brazil. The Tupí family is composed of ten smaller families, which are distributed throughout Amazonia, but show a concentration in the northwestern part of Brazil, especially in the State of Rondônia, where we find representatives of six of the ten families, including five that are spoken exclusively

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there (Arikém, Mondé, Puruborá, Ramarama, and Tupari). Figure 1 shows the major branches and internal classification of the Tupí family, following studies in the context of the Tupí Comparative Project, carried out by a team of linguists associated with the Museu Paraense Emílio Goeldi, in Brazil.[1] The Tupi-Guarani grouping is based on Rodrigues and Cabral (2002).

This article discusses adverbial constructions in Mekens and presents the morphosyntactic strategies employed in these constructions. From a typological point of view, adverbial clauses are subordinated clauses that have adverbial function, modifying verb phrases (VPs) or clauses (Thompson & Longacre 1985). In that sense, adverbial modification constructions convey information about the proposition, but they are not arguments of the clause or verb phrase they modify and they are not required by the argument structure of the verb. Mekens is a language in which adverbial modification at the clause level does not take the form of full adverbial clauses. Adverbial constructions in Mekens are generally realized as postpositional phrases based on the nominalization of the verb and also as derived verb phrases or reduced adverbial clauses. Other strategies for adverbial modification in Mekens include the use of auxiliary verbs to encode a temporal nexus and the use of a type of serial verb construction for purposive adverbial modification. In the following section I summarize the morphosyntactic properties of Mekens that are most relevant to the discussion of adverbial constructions that follows. Section 3 presents the morphosyntactic strategies employed to express adverbial modification, and Section 4 outlines the major topics discussed in the paper.

2. Overview of Mekens major morphosyntactic properties

There is no overt marking for the grammatical functions of subject and direct object. These roles are signaled by a fixed order of constituents in relation to the verbal predicate, in which the nominal phrases (NP) precede the verb. Therefore, in transitive clauses both the subject and the direct object NPs precede the verb. Likewise, in an intransitive clause, the subject NP precedes the verb. Thus, in Mekens unmarked clauses, SOV is the basic constituent order (see Galucio 2002), as shown in examples (1) and (2).

(1) *ameko* *aose* *so-a-t*
jaguar/dog man see-TH.V-PST
'The jaguar saw the man.'

1. The major participants of this joint project in the long run are Ana Vilacy Galucio, Carmen Rodrigues, Denny Moore, Gessiane Picanço, Luciana Storto, Nilson Gabas Júnior, Sebastian Drude, and Sergio Meira.

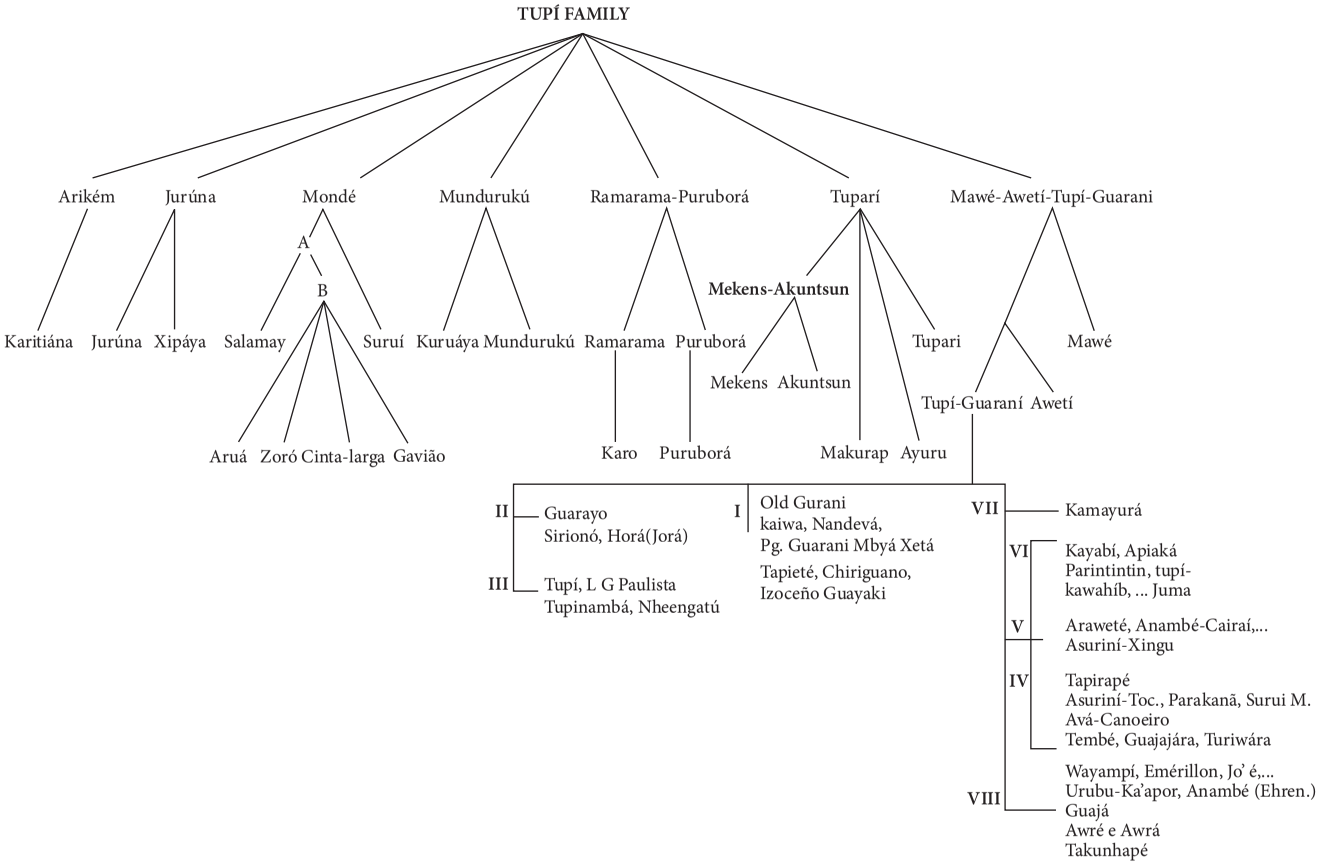

Figure 1. The Tupí family

(2) *aose ameko so-a-t*
man jaguar/dog see-TH.V-PST
'The man saw the jaguar.'

A common feature of Tupian languages is the occurrence of three subclasses of lexical verbs and verb phrases (VP): intransitive, transitive, and what has been termed uninflected or particle VPs (see Galucio 2001; Moore 1994).

In Mekens, the intransitive VPs are composed of an intransitive verb and a person prefix on the verb referring to the verb's subject. The person prefix shows person and number agreement with an overt NP subject, if present. Note that in (4) the person prefix (*se-*) on the verb is obligatory.

(3) *o-ib-a-t sekwa ikãõ*
1S-return-TH.V-PST soon DEM.distant.generic
'I returned quickly that time.'

(4) *roque se-er-a-t*
roque 3C-sleep-TH.V-PST
'Roque slept.'

Transitive VPs are composed of a transitive verb and a direct object, which is realized either by an NP, as in (5) or by a personal prefix (6a), but not both at the same time (6b). The subject of transitive clauses is expressed by an NP (either nominal or pronominal) external to the VP.

(5) *ameko aose so-a-t*
jaguar/dog man/person see-TH.V-PST
'The jaguar saw the man.'

(6) a. *ameko i-so-a-t*
jaguar/dog 3S-see-TH.V-PST
'The jaguar saw him/her/it.'

b. **ameko aose i-so-a-t*
jaguar/dog man/person 3S-see-TH.V-PST
('The jaguar saw the man.')

The third type of VP, the uninflected or particle VP is composed of only a verb which belongs to the subclass of particle verbs. Mekens particle verbs are distinct from transitive and intransitive verbs, in that they inflect neither for person/number nor for tense/aspect. Although they may have conceptual arguments, these are not formally expressed on the verb. The conceptual arguments of these verbs are either omitted or expressed in an oblique phrase. Mekens particle verbs typically occur in narratives and have different discourse functions, according to their semantic subclasses. Example (7) below shows three particle verbs: a reduplicated and ideophonic form for 'diving', followed by two other particle verbs. According to our corpus, particle

verbs are for the most part lexically determined. However, I have found few examples of intransitive verbs functioning as particle verbs. The last verb in (7) is one of such cases. At this point it is not clear to us what are all the conditioning factors involved, but see Galucio (2001: 51–56) for further characterization of Mekens particle verbs.

(7) *te* *arop* *isɨɨ* *koboy~koboy* *ebapita* *kwep*
FOC then deer dive~RED emerge climb
'Then the deer dove, emerged and climbed back up.'

Mekens also has a series of auxiliaries that express imperfective (or durative) aspect. These auxiliaries have suppletive forms that vary according to the body position of the subject, and they also inflect for person, showing agreement with the subject of the lexical verb. In (8), the auxiliary is used with an intransitive verb, and there is co-reference between the pronominal inflection on the verb and on the auxiliary and the nominal subject. Examples (9a) and (9b) are transitive clauses with pronominal (as opposed to nominal) subjects. The difference between (9a) and (9b) is that the former has a nominal object, while the latter has a third person pronominal object. Note that in both clauses, the pronominal inflection on the auxiliary represents the sole reference to the subject.

(8) *ameko* *se-er-a* *i-toop*[2]
jaguar/dog 3C-sleep-TH.V 3S-AUX.lying.IMPERF.NPST
'The dog is sleeping.'

(9) a. *tɨero* *mõtkwa* *o-koop*
chicha make.TH.V 1S-AUX.MOV.IMPERF.NPST
'I am making *chicha* (a fermented drink).'

b. *i-mõtkwa* *o-koop*
3S-make.TH.V 1S-AUX.MOV.IMPERF.NPST
'I am making it.'

Another common feature of Tupian languages is the occurrence of two series of personal pronominal morphemes: a series of independent pronouns and a series of corresponding bound forms (either clitics or prefixes). Accordingly, Mekens has a series of independent personal pronouns and a series of corresponding prefixes that are used with transitive and intransitive verbs, auxiliaries, nouns, adjectives and postpositions. Table 1 presents the paradigm of personal prefixes and pronouns.

These two series of personal morphemes are used with both transitive and intransitive verbs, and they show a partial complementary function and morpho-syntactic distribution, which gives rise to an ergative-absolutive pattern at the

2. See Footnote 5 for the use of prefixes *se-* 'co-referential third person' and *i-* '(simple) third person' on the lexical and auxiliary verbs.

morphological level. In simple clauses, the series of personal prefixes mark the subject argument of intransitive verbs (S) and the object argument of transitive verbs (O), whereas the personal pronouns mark the subject argument of transitive verbs (A). The pronouns are also optionally used for S, but they need to co-occur with the prefixes in that position. For A, the pronouns are obligatory, except for third person, and they never refer to the object (O). This pattern of agreement markers with transitive and intransitive verbs is exemplified in examples (10) to (12) below. In intransitive clauses, as in (10), the pronoun optionally co-occurs with a prefix, but does not occur by itself, that is, the prefix cannot be omitted.

Table 1. Pronominal morphemes

	Personal pronouns	**Personal prefixes**
1s	*õt*	*o-*
2s	*ẽt*	*e-*
3s	*te*	*i-; s-*[3]
3c	*sete*[4]	*se-*[5]
1p.inc	*kise*	*ki*
1p.exc	*ose*	*ose-*
2p	*eyat*	*eyat-*
3p	*teyat*	*teyat-*
3p.c	*seteyat*	*se-*

(10) *e-er-a-t* *(ẽt)*
2s-sleep-TH.V-PST you
'You slept.'

(11) *e-so-a-t* *sete*
2s-see-TH.V-PST s/he
'S/he saw you.'

3. *i-* normally occurs before consonant initial stems, and *s-* before vowel initial stems, but there are a few morphological exceptions.

4. This form is starting to be employed as a simple third person pronoun, not as co-referential anymore, replacing the form *te*.

5. Transitive verbs and nouns show a contrast between simple third person prefix (*s-; i-*) and co-referential third person prefix *se-*. The former refers to non-coreferential third person objects and genitives, whereas the latter refers to reflexive objects and genitives. On the other hand, intransitive verbs only take the co-referential third person prefix, to refer to its single argument, and not the simple third person prefix, whereas auxiliary verbs take only the simple third person prefix, and not the co-referential one. However, Mekens also employs these two prefixes contrastively for interclausal reference tracking, with both intransitive and auxiliary verbs (Galucio 2001:234–238).

(12) *i-so-a-t* *ẽt*
3s-see-TH.V-PST you
'You saw him/her/it.'

3. Adverbial constructions

Adverbial subordinate clauses have the function of an adverbial modifier, that is, they are subordinate to the main verb or clause to which they contribute information. In that sense, they function as adverbial modifiers to the VP or the clause (Thompson & Longacre 1985). There are several morphosyntactic strategies in Mekens used to express adverbial modification of clauses. However, the most common strategy does not involve full adverbial subordinate clauses. In order to make that notion clear, we should state the definition of sentence and clause in Mekens. Following Lyons (1981: 59), I define a Mekens sentence as a well–formed unit combining form and structure that can stand as a meaningful unit of discourse in the language system. Sentences may be classified in terms of their compositional patterns as simple and complex, that is, sentences containing a single predication and sentences containing more than one predication. The former consist of a single clause and the latter consist of more than one clause, where a clause is defined as any syntactic constituent containing a single subject-predicate unit.

I am referring to the adverbial modification at the clause level as adverbial constructions rather than adverbial clauses because they generally do not fit the definition of clause or sentence for the language. The most common type of adverbial modification takes the form of postpositional phrase or derived verb phrase that modifies a single clause, as adverbial phrases but not clauses. The semantic links that bind these adverbial phrases to their main predication in Mekens include temporal, conditional, causal and purposive nexuses. As pointed out by Givón (2001: 330–338), these links are of the local semantic type, in the sense that they express relations between two adjacent structures irrespective of the wider discourse context.

In the remainder of this section, I will discuss the three types of adverbial constructions in Mekens, according to their morphosyntactic and semantic properties. Section 3.1 presents the temporal/conditional adverbial modification; Section 3.2 discusses the reason and causal modification, and Section 3.3 the purposive adverbial modification. Each section is organized in subsections for the different morphosyntactic constructions employed in these three types of adverbial modification. Evidence for a process of grammaticalization involving the rise of an adverbial subordinator from the locative postpositional adverbial phrase is presented in Subsections 3.1.2 and 3.2.2. A further morphosyntactic strategy that

encodes purposive adverbial modification by employing a serial verb construction with motion verbs is presented in Subsection 3.3.2.

3.1 Temporal/conditional adverbial modification

From a formal point of view, there is no distinction in Mekens between propositions that establish temporal links and propositions that establish conditional links between events. Both types of adverbial modification are expressed through the same morphosyntactic strategy, which involves a locative postpositional phrase (PP) whose object may be either a nominalized verb form or a demonstrative pronoun, as presented below and indicated in the translation of the examples in this section.

3.1.1 *[Nominalization + Postp]*$_{PP}$[6]

Temporal/conditional adverbial modification is expressed by a postpositional phrase (PP), which is composed of a nominalized verb form followed by the locative postposition *ese*. The verb that indicates the temporal or conditional nexus to the main event is nominalized by the suffix *-ap,*[7] and this nominalization combines with the locative *ese* to form a locative postpositional phrase. Examples (13) to (15) illustrate this type of adverbial modification. The double translation for each sentence indicates that both readings are expressed in the same way. Comparing examples (14) and (15), we see that the adverbial phrase may either precede or follow the clause it modifies.

(13) *kirit* *se-ayt-kwa-t* *[se-akar-ab=ese]*
child 3c-cry-TR-PST 3c-fall-NMLZ=LOC
'The child cried when he fell down.'
[Literally: 'The child cried at his own falling']

(14) *[o-ib-ra-ab=ese* *tabir=eri* *ka]* *ki-po-e-motkwa*
1s-come-REP-NMLZ=LOC field=ABL move 1PL.INCL-hand-INTRVZR-make
'If/when I come back from the field, we work.'
[Literally: 'At my coming back from the field, we work.']

---

6. In Galucio (2001), the nominalizing suffix *-ap* + the locative postposition *ese,* when used in these adverbial constructions, were erroneously analyzed as being a single word subordinator *abese* 'if;when'. The same analysis was made for the postpositional phrase *kaab=ese*, classified in that work as a morphological variant of '*abese*'.

7. *-ap* is the circumstantial nominalizer, which refers to instrumental and locative nouns, and it has two forms: *-ap* when preceded by a consonant and *-p* when preceded by a vowel. Also, as a general rule in Mekens, voiceless stops are voiced when followed by a vowel in the same phonological word.

(15) *ki-po-e-motkwa* *[o-ib-ra-ab=ese*
1PL.INCL- hand-INTRVZ-make.TH.V 1S-come-REP-NMLZ=LOC
tabɨr=eri ka]
field=ABL move
'We (will) work when/if I come back from the field.'
[Literally: 'We work at my coming back from the field.']

This type of temporal/conditional adverbial construction may be used in hypothetical situations, as in (16), or habitual situations, as in (17). Note that habituality is not encoded by the temporal/conditional adverbial construction in (17), but rather by the habitual morpheme *kakwa*.

(16) *ãsi* *se-jarap-kwa* *pegat* *eteet* *pera*
mother 3C-happy-VBLZR IRR.FUT HYP macaw
so-a *i-mi-a-ab=ese*
see-TH.V NMLZ-shoot/kill-TH.V=LOC
'My mother would be happy if I saw and killed a macaw.'
[Literally: 'My mother would be happy at the seeing and killing of a macaw (by me.']

(17) *o-kɨp asi ne kakwa [õt kwesog=õ ka-ab=e*[8]*se]*
1S-leg pain COP habitual I far=DAT move-NMLZ=LOC
'My legs always ache if/when I walk a lot.'
[Literally: 'I always have my legs aching at (my) going far.']

---

8. As pointed out by a referee, the form *kaap* that appears in example (17) preceding the locative postposition *ese* is strikingly identical to the demonstrative proform *kaap* that also appears preceding the locative postposition discussed in Section 3.1.2. This is, in fact, a coincidence. The construction shown in (17) involves a fixed formula to express movement from and to some point, using the verb of movement *ka*, which can occur with other morphemes. As exemplified in the clauses below, that verb of movement is different from the demonstrative proform *kaap* discussed in Section 3.1.2.

(i) *kwesog=õ ka se-paese=iat so-a*
far=DAT move 3C-all=COL see-TH.V
'They go far to visit their relatives'.

(ii) *sexta kẽra teyẽ eke=bõ ka-ra*
friday NASSERT DEM.seated here=DAT move-REP
'On Friday this one will return here, it is said.'

(iii) *seteyat-set se-teg-õ kwa i-et*
3PL-go 3C-house-DAT move.PL.SBJ 3-AUX.MOV.IMPERF
'They left, they are going home/to their own house.'

3.1.2 *[DEM + Postp]$_{PP}$*

There is another morphosyntactic strategy to specify temporal/conditional adverbial modification that also employs a postpositional phrase. In this construction, however, rather than on a nominalized verb, the PP is based on the demonstrative pronoun (pro-form) *kaap* 'that', plus the locative postposition *ese*, as in *kaabese* 'in that' (*kaap=ese* 'that= LOC)'. This demonstrative pro-form *kaap* is the object of the PP and functions as an anaphoric pronoun, semantically, replacing the whole adverbial clause (see Galucio 2001:51–53). The PP *kaabese* 'at that' has a fixed position, always appearing between the two clauses. Since adverbial clauses may either precede or follow the main clause, the result is that the demonstrative pro-form may refer to the adverbial clause either cataphorically or anaphorically. That is, depending on the adverbial clause position in relation to the main clause, the demonstrative pro-form will either precede or follow the clause it is standing for.

(18) *o-k-a* *kot* *kaab=ese* *i-ko* *pa* *ẽt*[9]
1S-ingest-TH.V IM.FUT DEM=LOC 3S-ingest FUT you
te *pe=ɨa* *perek* *kɨ* *sete*
FOC OBL=lagoon long water s/he
"'You will eat me if/when you drink all the water of the long lagoon', she (said)." (TXT)
[Literally: "'(You) will eat me, at that, you will drink it, the water of the long lagoon', she (said)".]

In this latter type of construction, there is a full adverbial subordinate clause *i-ko pa ẽt te pe=ɨa perek kɨ*, modifying the main clause, and the *kaab=ese* phrase functions as a sentence connective. Considering the distribution of the expression *kaab=ese*, our hypothesis is that, through reanalysis, the already functional phrase *kaab=ese* becomes even more functional or grammatical, and takes on the function of an adverbial subordinator. That would be a clear case of grammaticalization, as described by Hopper and Traugott (2003:2). That change in Mekens instantiates the general pattern of directionality specified in grammaticalization theory, going from independent, concrete lexical item to bound, abstract grammatical morpheme (Gildea 2000:vii). In sentences (18) and (19), the source of the *kaab=ese* phrase as a locative postpositional phrase (PP) is still readily available, and its semantic value, referring to the whole adverbial clause, is still recoverable from context. However, that phrase is becoming morphologically opaque and it is starting to function as an adverbial subordinator establishing the connectivity between the two clauses.[10]

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9. The last vowel of the root *ko* 'ingest' is deleted before the theme vowel *-a*, giving rise to the form *ka*.

10. Even clauses showing the 'nominalization' PP, in which the locative postposition *ese* follows the nominalizer suffix on the verb (*V-ab=ese*), have been interpreted by speakers of

One piece of evidence for that analysis is the fixed position of the *kaab=ese* PP between main and adverbial clause. Compare examples (18) and (19). In the former, the *kaab=ese* PP precedes the adverbial clause, but in the latter it follows it, due to its fixed intermediary position between the clauses.

(19) *aīkwat sese o-itkwa kaab=ese o-ser-a par=õt*
mosquito many 1S-bite DEM=LOC 1S-leave-TH.V FUT=I
'I will leave if/when many mosquitoes bite me.'
[Literally: 'Many mosquitoes bite me, at this I will leave.']

The temporal adverbial constructions generally distinguish two types of relationship between the events: (i) sequential temporal nexus, when there is an ordering in time of the related events; and (ii) simultaneous temporal nexus, when the related events overlap on the time scale. All the examples discussed so far illustrate adverbial constructions indicating a sequential temporal nexus between two related events. However, the [Nominalization + PP] and [Dem + PP] constructions can also be used to express simultaneity relations, in combination with auxiliary verbs. Mekens auxiliary verbs are used only in the durative or imperfective aspect and distinguish between present and past durative by means of distinct suffixes. The use of auxiliaries in clausal adverbial modification is a mixed strategy that indicates durative aspect and signals simultaneity with some other event. In this sense, Mekens shows one of the most commonly used strategies in the world languages to express a simultaneity relationship. According to the typology of adverbial clauses presented by Thompson and Longacre (1985: 189), there are two common ways of marking a background clause as simultaneous with its main clause: languages may use a marker that explicitly signals simultaneity, or they may use a marker for continuative, durative, or imperfective aspect, to also indicate a simultaneous relationship.

As shown in (20) below, the same locative postpositional phrase discussed above, the pro-form *kaab=ese*, is employed in combination with an auxiliary to express simultaneity between events.

(20) *o-e-pibor-a õt kaab=ese*
1S-INTRVZR-arrive-TH.V I DEM=LOC
e-opap-para e-ko-a
2S-maize-shuck 2S-AUX.MOV.IMPERF.PST
'I arrived when you were shucking the kernels off the maize cob.'
[Literally: 'I arrived, at that, you were shucking the kernels off the maize cob.']

Mekens as possessing the structure *V abese*. That is, *abese* is viewed as an independent word, meaning 'if, when'. That interpretation was the basis of the misguided analysis presented in Galucio (2001). However, it does show that such a reanalysis is emergent in the language.

The grammaticalization hypothesis of *kaab=ese* presented above also applies to these auxiliary adverbial clauses, and to the reason clauses discussed in Section 3.2 below. This wide distribution is, in fact, another argument in favor of grammaticalization from an anaphoric postpositional phrase with a referent in the discourse to an adverbial subordinator.

Another strategy to express a simultaneity relation between events does not require a specific marker. It suffices to employ an auxiliary in the adverbial clause, indicating the durative aspect in either the past or the present tense. Hence, the use of auxiliary clauses serves to specify both the durative aspect and a simultaneity relationship, in Mekens. Simultaneity adverbial (auxiliary) clauses can either precede or follow the main clause. Examples (21–22) illustrate this morphosyntactic strategy to indicate interclausal simultaneity.

(21) *[o-er-a* *o-to-a]* *e-e-pibor-a*
1S-sleep-TH.V 1S-AUX.lying-IMPERF.PST 2S-INTRVZR-arrive-TH.V
'While I was sleeping you arrived.'

(22) *pagop-taip*$_j$ *ese-kwar-a-t* *[i*$_j$*-er-a* *i*$_j$*-to-a]*
new-boy SOC-leave-TH.V-PST 3-sleep-TH.V 3-AUX.lying-IMPERF.PST
'He$_i$ carried the young boy$_j$ while he$_j$ was sleeping.' (TXT)

3.2 Cause and reason adverbial constructions

Information about the cause or reason of a described event can be coded in Mekens by three different, but related morphosyntactic strategies. The first two are equivalent to the strategy used to code conditional/temporal relations, i.e. they also involve a postpositional phrase, whereas the third strategy does not employ a PP, but rather a derived VP.

3.2.1 *[Noun/nominalization + Postp]*$_{PP}$

The postpositional phrase expresses the cause of the described event in the main clause and can be based on the ablative postposition *eri.* The object of this PP is a nominal phrase (NP) that may be formed from a nominalized verb form (23) or, alternatively, it may take an underived noun as its basis (24).

(23) *e-i-sõpo* *naar-iat* *o-toap* *mepkwa-ab=eri*
2S- NMLZ-beat/kill COP-REM.PST 1S-hammock smear-NMLZ=ABL
'It was you who killed it in those days due to the smearing of my hammock (with excrement).' (TXT)
[Literally: 'Your killing it those days, from the smearing of my hammock.']

(24) *aose se-ekɨbõ noat poret asoap sese=eri*
man 3C-walk NEG now rain [n.] many=ABL
'People don't go out now because it rains a lot.' (TXT)
[Literally: 'People don't go out now from much rain.']

Adverbial constructions formed with the locative postposition *=ese*, discussed in Section 3.1.1 above, may also have a causal meaning, though structurally it is the same construction as employed for conditional/temporal adverbial modification. This is shown in (25), which is parallel to examples (13) to (17) above.

(25) *õt o-akara õt o-etayap-ka-ab=ese*
I 1S-fall I 1S-slip-TR-NMLZ=LOC
'I fell down because I slipped' or 'I fell down when I slipped'
[Literally: 'I fell down at my slip.']

3.2.2 *[DEM+ Postps]$_{PP}$*

Also, similarly to the conditional/temporal adverbial constructions, the reason of an event in the main clause can be indicated by using a postpositional phrase based on the demonstrative pro-form *kaap* 'that', which may replace the whole cause of the event in the manner of an anaphoric pronoun, as shown in (26) below.

(26) *kẽra sete sĩĩt kaat kaab=ese okie*[11] *ki-asega-a-t*
NASSERT s/he small QUOT that=LOC we 1PIN-increase-TH.V-PST
'It seems that the little one said: "For that (reason) we increased in number again."' (TXT)
[Literally: 'It seems the little one said: "At that we increased in number."']

However, we saw in Section 3.1 that the whole locative postpositional phrase *kaabese* is being grammaticalized as a formal adverbial subordinator in the language, and that analysis applies here as well, since the same structural construction is used.

3.2.3 *Derived verb phrase*

The third strategy to code reason adverbial clauses uses another anaphoric demonstrative pronoun *kaat* 'that', but instead of a postpositional phrase, it takes the form of a derived verb phrase. The demonstrative pronoun *kaat* is followed by a

11. *okie* '1PL.INCL' is the dialectal variant of *kise* '1PL.INCL', employed by speakers of the Guaratira and Siokweriat dialects.

verbalizing particle *nã*, as in: *kaat=nã* [*kaanã*] '(in) being that (way); in being that', and *kaat=nã põrã* '(in) really being that (way)'. This type of adverbial construction, however, is not frequent in either natural or elicited speech.

(27) *o-taka maŋa sete kaat=nã õt o-e-pirik*
1S-turn CAUS S/he DEM=VBLZR I 1S-INTRVER-fall
'He made me turn, that's why I fell down.'
(Literally: 'He made me turn, in being that (way) I fell down.')

(28) *kiakop se-koype tapoka-a-t kɨbaapi=iri kaat=nã*
sun 3C-sister burn-TH.V-PST crop.field=ABL DEM=VBLZR
põrã *i-eikwa nop te i-top*
emphasis 3S-like NEG FOC 3S-father
'The Sun (Kiakop) burned his sister in the crop field, for this reason his father does not like him.' (TXT)

In Galucio (2001), I put forward an analysis of the *kaanã/ kaanã põrã* phrase as being a subordinator particle carrying the meaning of 'why; for that (reason)', not noticing the internal structure of this phrase. Hence, sentences like those in (27) and (28) were analyzed incorrectly as containing full adverbial subordinate clauses carrying a subordinator particle in final position of a subordinate clause. In the present article, this analysis is rejected on the basis of the new findings regarding the internal structure of *kaanã* 'Dem + verbalizer' and *kaanã põrã* 'Dem + verbalizer + emphatic particle'. The derived phrase formed with the clitic *nã* is formally a verbal phrase. Therefore, the phrase structure proposed for the complex subordinate clause, shown in (28) requires a main clause modified by an adverbial clause, which specifies the reason of the event. These two clauses are linked by the VP derived with *kaat* and *nã* which refers anaphorically to the reason clause. The VP derived in this manner contains an anaphoric pronoun and also works as a subordinating connective that links the reason clause to the main clause.

3.3 Purposive adverbial constructions

There are two morphosyntactic strategies in Mekens to code purposive adverbial modification. The first strategy resembles the reason adverbial clauses presented in 3.2.3 above. That is, it also employs a derived verb phrase formed with the verbalizing particle *nã*, which specifies the purpose of the clause. The second strategy involves a compound structure with verbs of movement.

3.3.1 *Derived verb phrase*

The verb phrase containing information about the purpose of the proposition is formed with the purpose verb plus the verbalizing particle *nã* and yields a propositional 'implicated' construction. The VP formed with *nã* carries the implicature of 'to be as X; in order to be X; to become X'. Examples (29–30) illustrate this type of construction.

(29) *āsi* *asisi* *perop-ka-a-t* *ŧiero* *motkwa-ap=nã*
mother corn cooked-TR-TH.V-PST chicha make.TH.V-NMLZ =VBLZR
'My mother cooked corn to make *chicha* (a fermented drink).'
(Literally: 'My mother cooked corn (for it) to become what makes *chicha*.')

(30) *koikopit* *se-top* *i-maot* *kakwa* *se-ekwe-ap=nã*
type.of.tree 3C-father NMLZ-transform habitual 3C-climb-NMLZ=VBLZR
'It is *koikopit* tree that his father used to transform for him to climb it.' (TXT)
(Literally: Koikopit tree, his father used to transform it to be his climbing object.')

Formally, this derived verb phrase construction is similar to the strategy found in reason adverbial modification (see Section 3.2.3 above). The particle *nã* can only follow noun phrases. Therefore, the *nã*-derived VP expressing the purpose of the main clause will be based either on a nominalized form of the VP stating the purpose of the proposition, as in (29–30) above, or on underived noun phrases, as shown in examples (31–32) below.

(31) *ameko* *ŧsĩŧ* *sĩĩt* *ar-a* *kot-kaat*
jaguar/dog deer small get-TH.V FUT-DESID.3
naat *kop* *se-iko* *nã*
cop AUX.moving 3C-food VBLZR
'The jaguar wants to catch the little deer in order to eat it.'
(Literally: 'The jaguar wants to catch the little deer in order for it to be its food.'
(TXT)

(32) *sete* *i-õp* *se-kip* *aisi* *nã*
s/he NMLZ-give 3C-young.brother wife VBLZR
'He gave her to be his brother's wife.'(TXT)

The verb phrase stating the purpose of the proposition is restricted in the sense that it cannot take an overt subject. Generally, the subject of the purpose VP derived with *nã* is co-referential with the subject or the object of the main clause. Even when the subjects of the two events (main and purpose) are to be understood

as different, there is no overt subject in the purpose VP derived with *nã*, its subject reference is given by the context. In (33), repeated from (30), the subject of the VP in the adverbial position is a mythological hero, who in this context is the highly topical main character of the story, and thus the understood subject of the adverbial clause.

(33) *koikopit* *se-top* *i-maot* *kakwa* *se-ekwe-ap* *nã*
type.of.tree 3C-father NMLZ-transform habitual 3C-climb-NMLZ VBLZR
'It is *koikopit* tree that his father used to transform for him to climb it.' (TXT)

3.3.2 *Complex structures with motion verbs*

The second strategy of purpose adverbial modification employs a verb of motion, such as 'come' or 'go', plus one or more verb phrases that express the purpose of the verb of motion. As the following examples show, the verb of motion can either precede or follow the other VP.

(34) *o-ser-a-ra* *kot-ke* *o-si* *o-tak* *kaat* *so-b-ra*
1S-leave-TH.V-REP FUT-DESID.12 1S-mother 1S-daughter DEM see-?-REP
'I want to leave in order to see my mother and my daughter again.' (TXT)

(35) *kãrã* *ar-a* *eba* *kise-set*
Brazil.nuts get-TH.V EVID we-leave
'We had gone to fetch Brazil nuts.' (TXT)

Similarly to the verb phrase derived with the particle *nã* (see Section 3.3.1), this type of construction also has a restriction on its subject referents. The purposive use of verbs of motion is restricted to clauses where all the VPs have the same referential subject. In that sense, this construction formed by the motion and purpose verbs can be analyzed as an instance of serial verb construction in the language. Together, the motion and the purpose verbs show the property of argument sharing attributed to serial verb constructions in the literature (Baker 1989; Lefebvre 1991). They cannot have distinct referential subjects, and they also show event cohesion, i.e. the whole construction refers to a single event.

Nonetheless, in spite of the above mentioned properties that clearly define the motion-purpose adverbial construction as a serial verb construction, there is no formal distinction between this purpose serial verb construction and a sequence of autonomous and independent verb phrases. Since the subject of intransitive verbs are marked by personal prefixes (see Section 2), all the motion verbs have overt subject markers and can, therefore, stand as a well-formed single clause, conform the definition of clause given at the beginning of Section 3. Therefore, constructions of this type can be ambiguous between two readings: a purpose adverbial modification and a simple sequence of events, as indicated in examples (36–37) below.

(36) *o-si* *iko* *mi-a-ra* *kot* *o-ser-a-ra*
1s-mother food kill/shoot-TH.V-REP IM.FUT 1s-leave-TH.V-REP
'I will go hunt game animals again in order for them to be my mother's food.'
'I'll go again, I'll hunt my mother's food.' (Txt)

(37) *amio-apɨit* *nã* *i-ko-a* *seteyar-ib-ra*
head-middle VBLZR 3-AUX.moving-PRG.PST they-come-REP
se-iko *ka-ra* *tɨero* *ka* *se-aso-a*
3C-food ingest-REP chicha ingest.TH.V 3C-bathe-TH.V
'In the middle of the day, they come back in order to eat, drink *chicha* and bathe.'
'In the middle of the day, they come back, they eat, drink *chicha* and bathe.' (Txt)

When the sentence has a second person subject, this construction may also have an imperative reading, as seen in (38) and (39) below.

(38) *e-ib-a* *pa* *ẽt* *tɨero* *ka*
2s-come-TH.V FUT you chicha ingest.TH.V
'You will come again to drink *chicha*.'
'Come again to drink *chicha*!'

(39) *o-taɨp* *pega* *e-ser-a*
1s-son call 2s-leave-TH.V
'Go call my son.'
'You go call my son.' (Txt)

4. Summary

The morphosyntactic strategies presented here cover the major types of sentential adverbial modification in Mekens, not all of which qualify as full subordinate clauses. In most cases, sentential adverbial modification takes the form of intraclausal adverbial modification, specified by means of postpositional phrases, a crosslinguistically common type of adverbial modification. One noteworthy feature of Mekens is that these postpositional phrases are based on nominalized forms of the verb that would otherwise form the nucleus of a potential adverbial clause, as can be observed for the temporal/conditional and for the purposive adverbial constructions. Another closely related structure involves the demonstrative anaphoric pronoun *kaap* which takes the whole adverbial proposition as referent and forms the basis for a postpositional phrase with either the locative or the ablative postpositions. Based on the distribution of the postpositional phrase *kaabese* 'DEM + Loc' and the growing opacity of its internal structure, I postulate that this phrase *kaabese* is being reanalyzed as a subordinate connective, causing a change in the current structure of the adverbial constructions. I have also shown that,

in addition to the adverbial modification constructions based on nominalization and derived verb phrases, Mekens also employs a general type of serial verb construction with motion verbs to encode purposive adverbial modification.

Abbreviations

=	clitic boundary	INTRVZR	intransitivizer
1	first person	LOC	locative
1PL.INCL	first person plural inclusive	NASSERT	non-assertive
		NEG	negation
2	second person	NFUT	nonfuture
3	third person	NMLZ	nominalizer
3C	third person co-referential	NP	noun phrase
		NPST	nonpast
3PL	third person plural	OBJ	direct object
ABL	ablative	OBL	oblique
AUX	auxiliary	OM	object marker
COL	collective	PL	plural
COP	copula	POSTP	postposition
DAT	dative	PP	postpostional phrase
DEM	demonstrative	PST	past
DIM	diminutive	QUOT	quotative
EMPH	emphasis	RED	reduplication
EVID	evidential	REM.PST	remote past
FOC	focus	REP	repetition
FUT	future	SOC	sociative
FUT.DESID.12	first and second person desiderative future	SBJ	subject
		TH.V	theme vowel
FUT.DESID.3	third person desiderative future	TR	transitivizer
		V	verb
IM.FUT	immediate future	VBLZ	verbalizer
IMPERF	imperfective	VP	verb phrase

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Relative clauses in Mẽbengokre*

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This paper describes and proposes an analysis of relative clauses in Mẽbengokre, a Jê language from the eastern Amazon region of Brazil. Relative clauses in this language are normally internally-headed, and the verbal predicate within them assumes a nominal form, triggering ergative alignment. The description of relative clauses addresses first (Section 2) their internal characteristics, i.e. ergative case marking, absence of morphological marking of the head of the relative clause, absence of some of the TAM categories present in main clauses, and the fact that internal heads can be omitted, yielding "free relative" constructions; Section 3 describes their external characteristics, i.e. their peculiar distribution within the clause, which often requires displacement to a left-peripheral focus position, the determiners and classifiers that may occur outside of the relative clause, and the possibility of some heads being external to the relative clause, among other topics.

The main thrust of our analysis of relative clauses is to show (Section 4) that they are not adjuncts of any sort, but rather self-contained noun phrases. In light of this idea, we analyze all "adjectival" modification within a noun phrase as having a predicative structure identical to that of relative clauses. The paper concludes by arguing that the proposed analysis of relative clauses illustrates a striking property of Mẽbengokre, namely the systematic ambiguity between modifiers and heads found in all nominal expressions in the language.

1. Introduction

Mẽbengokre is a Jê language spoken in north-central Brazil by two indigenous nations, the Xikrin and the Kayapó, numbering over ten thousand individuals in total. It is closely related to Apinayé (described by de Oliveira 2005), Suyá (described by Santos 1997), Timbira (described by Popjes & Popjes 1986; Alves 2004), and Panará (described by Dourado 2001).

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This article is a description of the construction in Mẽbengokre which is the functional equivalent of relative clauses, of which (1) is a simple example (the relative clause is within brackets):[1, 2]

(1) *amrẽ i-mã [a-je tep bôr] kwỳ ngã*
hither 1-DAT 2-ERG fish roast.PL.N some give.V
'Give me some of the fish you roasted.'

(2) *[a-je tep bôr] mỳrỳri dja ba ngôj ku'õ*
2-ERG fish roast.PL.N while FUT 1NOM pot wash.V
'I'll wash the pots while you roast the fish.'

The most natural way to analyze this construction, which is identical in structure to complement and adjunct clauses (cf. (2)), is as a nominalization. For this reason, the paper begins with a general characterization of noun phrases in Mẽbengokre. The description of relative clauses themselves is divided into "internal" and "external" aspects (roughly what happens within and outside the brackets in the example). The paper closes by taking up noun phrases in general again, after the insigths offered by the examination of relative clauses.

2. Introduction to Mẽbengokre noun phrases

Simple noun phrases in Mẽbengokre generally consist of single bare nouns, as illustrated in (3). The interpretation of these bare nouns can range from definite to generic depending on various factors (such as their topicality, aspect marking on the verb, and context), and in the case of count nouns that denote non-humans, can be both singular or plural. Nouns can be followed by demonstratives or quantifiers; some of these are shown in (4). There does not seem to be a clear distinction between count and mass nouns.[3]

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1. In this paper, contrary to our previous practice, we follow the most common orthographic conventions used to write Mẽbengokre, rather than a broad phonetic transcription. The symbols stand for their usual IPA equivalents, except for *r* = /ɾ/, *'* = /ʔ/, *nh* = /ɲ/, *ng* = /ŋ/, *x* = /tʃ/, and *dj* = /dʒ/; *ê* = /e/, *e* = /ɛ/, *ô* = /o/, *o* = /ɔ/, *y* = /ɯ/, *à* = /ʌ/, *ỳ* = /ɤ/, *ỹ* = /ɯ̃/, and *ã* = /ɐ̃, ã/.

2. A note regarding research methodology. The general properties of the construction described in this paper are known to us from analysis of texts and from our own direct exposure to the language during the period from 1996 to 2009, totalling approximately ten months in the field. For the purposes of this paper, targeted elicitation was carried out both monolingually and bilingually, and the majority of examples comes from elicitation.

3. We cannot say much regarding the count/mass distinction in Mẽbengokre in this paper. Note however that most quantifying words (e.g. *kwỳ* 'some') don't make a distinction between

(3) *tep*
fish
'the fish, a fish, fish, some fish'

(4) a. *tep jã*
fish this
'this/these fish'

b. *tep wã*
fish that
'that/those fish'

c. *tep kuni*
fish all
'all the fish', 'all of the fish (sg. or pl.)'

d. *tep ˀõ*
fish one
'one fish'

e. *tep kwỳ*
fish some
'a few fish', 'some of the fish (sg. or pl.)'

Stressless versions of the demonstratives *jã* and *wã* exist, making them enclitics to the head noun. One is tempted to call these determiners, as de Oliveira (2005) did for Apinayé. In Mẽbengokre, they do not seem to have a usage or meaning that sets them apart from demonstratives, however, so we will consider them to be contextually conditioned variants of the stressed demonstratives. The conditions for this alternation are not known. In elicitation, consultants report that the stressed demonstrative is interchangeable with the stressless one in most situations.

Keeping to the strictly head-final nature of Mẽbengokre, adjuncts to the noun phrase appear to the left of the head noun; these are normally possessors, locations, or other expressions consisting of a postpositional phrase:

(5) a. *i-nhõ kà*
1-POSS canoe
'my canoe'

b. *krĩ raj kam kubẽ*
village large in barbarian
'city dwellers'

describing masses or pluralities, as should be clear from the glosses to the examples. Furthermore, words such as *tep* 'fish' and *mry* 'land animal' may refer to individuals (i.e. a count interpretation) or to their meat (i.e. a mass interpretation).

c. *mẽ no kam ixe*
people eye in mirror
'eyeglasses'

d. *bô o kikre*
thatch with house
'house with a thatched roof'

e. *ngy ã mẽ karõ*
clay on people image
'clay doll'

f. *pidjỳ nhõ myt*
medicine POSS time
'time for medicine'

(6) a. *i-krã*
1-head
'my head'

b. *kubẽ kra*
barbarian son
'the white man's son'

c. *karõ*
image
'his/her/its shadow'

(7) a. *i-djudjê*
1-weapon
'my weapon'

b. *(i-nhõ) djudjê*
1-POSS weapon
'(my) bow'

The nouns *eye* and *image* in examples (5c, 5e) are *relational* or inalienably possessed, meaning that they require a complement, in the form of either another noun or person inflection, as illustrated in (6). If no overt noun or person inflection is present, a third person reference, anaphoric to a topical entity, is always implied (example (6c)), except in a vanishingly small class of noun stems that can alternate between a relational (i.e. inalienably possessed) and a non-relational (i.e. alienably possessed or unpossessed) use (cf. (7)). The required complement position can however be saturated by a generic noun such as *mẽ* 'people' to get an approximately non-relational meaning, as in (5c, 5e). The interpretation of the dependent noun in this construction is usually that of inalienable possessor, kindred, or part of a whole; other semantic relations, such as material, kind, function, or purpose, normally need to be expressed through postpositional adjuncts.

In particular, the postposition *nhõ*, used for alienable possession, is the one with the greatest semantic versatility, perhaps as a result of recent influence from Portuguese, cf. the distinctly non-Mẽbengokre-like (5f).

The one clear exception to head-finality in the noun phrase has the following form:

(8) *kubẽ* *rop*
barbarian dog
'dog-people', 'dog-person'

A series of expressions like the one in (8), all of them containing *kubẽ*, are used to name mythological beings. Neither *kubẽ* nor *rop* are relational nouns, so the only analysis possible for these noun phrases is one where the two nouns are in apposition. This is in stark contrast with the remainder of the language, where it is usually straightforward to identify the element on the right as the head of a construction.[4] These symmetric compounds can be paraphrased by headed constructions where one of the elements is marked by a postposition:[5]

(9) *kubẽ* *bê* *rop*
barbarian in dog
'dog-people', 'dog-person'

4. Other than in these seemingly symmetric compounds, the element on the right in N-N compounds in Mẽbengokre is always relational, and the element on the left can be straightforwardly identified as its complement in morphosyntactic terms, if not always semantically. Thus, Mẽbengokre compounds differ from the apparently similar head-final compounds of English and other Germanic languages in the relationality of the noun on the right, which places important restrictions on what the semantic relation between the two parts can be. Incidentally, we call these constructions *compounds* here for lack of a better term. It should later become clear that we consider the headed construction to be simply the syntactic object that results from putting together a relational word with a complement, in a fully productive way.

5. It will probably strike the reader as counterintuitive that the modifier in this construction should be *kubẽ* rather than *rop*, an objection that we share, given that *kubẽ* is the hyperonym for all foreign groups, real or mythological. The exact way in which (9) gets its interpretation will become clearer when we address adjectival modification (cf. the discussion surrounding example (10)). In brief, *bê* is a locative postposition which gets a copular interpretation by virtue of the existential interpretation that noun phrases get when they become clauses. The literal meaning of the example would therefore be 'there is dog in the barbarian' as a clause, and 'the barbarian on which there is dog' as a noun phrase. Note that this sort of construction can take on an equative meaning even in English, in cases such as 'in me you have a friend', which means 'I am your friend'.

Modification by adjectives requires a great deal of further discussion. We postpone the presentation of our analysis until Section 5 but in order to give the reader a flavor for the construction, we offer the following examples:

(10) a. *idji* *mex*
3.name beautiful
'beautiful names'

b. *ngy* *bor*
clay bake.N
'baked clay'

c. *mẽ* *kra-re*
people son-DIM
'people with children' (also 'people's children')

In all of these cases, the modifier appears to be on the right. Morphosyntactically, however, what here seem to be modifiers are actually relational heads acting as predicates, taking their modifiees as complements. Later we show how, in light of our analysis of internally-headed relative clauses, the idea of modifiers as predicates, i.e. as heads of a relative clause which modifies a noun which is internal to it, can in fact be upheld for all modified noun phrases. Example (10c) shows that relational words with nominal reference can also be modifiers, i.e. they are ambiguous between being the semantic heads of the construction, or being modifiers to the word to their left. We will argue in Section 5, that the ambiguity exists also in (10a) and (10b), which would have the additional readings "the beauty of the names" and "the baking of the clay", respectively. Having implicitly defined *head* above, we could define *modifiers* in the language to be heads in a non-referential function.

3. Internal characteristics of relative clauses

Most relative clauses in Mẽbengokre are head-internal. This means that the relativized noun appears within the relative clause, as an argument of the embedded predicate. No special marking appears on the noun that serves as head. Compare the main clause in (11a) with the relative clause (11b):

(11) a. *ba* *kubẽkà* *jadjà*
1NOM clothes put.on.V
'I put on clothes.'

b. *i-je* *kubẽkà* *jadjàr* *jã*
1-ERG clothes put.on.N this
'these clothes that I put on'

To contrast the internally-headed relative clause of Mẽbengokre with externally-headed constructions also found in the language, which parallel the relative clauses found in more familiar languages, take the following example:

(12) *kàx jã, [i-je o mry kà kadjàr] jã*
knife this 1-ERG with animal skin remove.N this
'this knife that I use to skin animals'

A construction such as this one differs from the relative clause in (11b) in that there is a pause between the purported head and the relative clause. In addition, two demonstratives are present. This type of construction, involving apposition of a simple noun to a gapped relative, is amply discussed by Meira (2006) as the most characteristic form of the relative clause in Carib languages. Like in Mẽbengokre, the Carib construction is characterized by a clear pause between the simple noun and the gapped relative, but, unlike the former, the construction as a whole takes at most a single demonstrative. Because of the presence of multiple demonstratives, we contend that, whatever the correct analysis of Carib is, Mẽbengokre structures such as (12) are not grammaticalized as relative clauses in the language, and have to be analyzed as two complete noun phrases that are juxtaposed, each of which is fully referential (i.e. the relative clause is not interpreted restrictively). The obligatory presence of a pause reinforces the fact that there is no nominal template to support such juxtaposition as an actual adjunction, but rather only as an afterthought or clarification. This is possible with pairs of underived noun phrases, such as the following:

(13) *Kajtire, a-kamy ja*
Kajtire 2-brother this
'Kajtire, this brother of yours'

We contend that the construction in (12) consists of a free relative (see Section 3.5) juxtaposed to a noun phrase.

As can be observed in (11b), word order in the relative clause is identical to order in the equivalent main clause. The main verb of a relative clause takes a special form, which, as we have argued elsewhere (Salanova 2007b, 2008), is nominal in character. One can also observe that the form of the pronoun for the transitive subject is ergative in (11b). Relative clauses, like all other embedded clauses, display an ergative pattern, evident in pronominal agreement on the verb and in the marking of transitive subjects:

(14) Ergative split

a. Nominative pattern in main clauses:
i. *ba a-pumũ* ii. *ba nõ*
1NOM 2-see.V 1NOM lie.V
'I see you.' 'I lie down.'

b. Ergative pattern in relative and other embedded clauses
i. i-je a-pumũnh ii. i-nõr
1-ERG 2-see.N 1-lie.N
'me seeing you' 'me lying down'

Outside and to the right of the relative clause a classifying element may appear, as well as a demonstrative or quantifier. Very little else can appear in a noun phrase containing a relative clause.

In this section, we develop the following additional descriptive points about the internal workings of relative clauses: (a) relative clauses lack some of the morphological categories and structural positions that are possible in main clauses; (b) there is no marking on the head, leading to ambiguity; (c) all positions in the clause can be relativized, (d) there is no definiteness restriction on the head of the relative clause, and (e) heads may be replaced by third person pronouns. In Section 4, we discuss the elements that appear outside of relative clauses.

3.1 Relative clauses lack tense and other categories

The left periphery of matrix clauses is constituted by a focus position, which can contain at most one dislocated phrase, a delimiting particle that indicates future versus nonfuture tense (or possibly irrealis versus realis mood), and a position reserved for nominative subjects, which is further to the left than that of the ergative subject or of any verb phrase constituent.

None of these left peripheral positions are available in relative clauses. The ergative subject, considered to be an oblique, can appear only after the particle *arỳm* 'already', which appears just after the nominative subject in the matrix clause. This puts whatever position *arỳm* is in as the left bound of structure in internally-headed relative clauses, effectively excluding tensed relative clauses.

(15) Lack of certain morphological categories:

a. Focus, tense/mood, and a higher subject position in main clauses:

kukryt *nẽ* *ba* *arỳm* *ku-bĩ*
tapir (FOC) NFUT 1NOM already 3ACC-kill.V
'I killed *tapir*.'

b. Not available in relative clauses (but see Section 4.2 below):

*(*kukryt)* *(*nẽ)* *(*ije)* *arỳm* *ije* *bĩn*
tapir (FOC) NFUT 1ERG already 1ERG 3.kill.N

Mẽbengokre has a series of postverbal markers that can be used in some of the same functions as the left peripheral particles. These are either directional postpositions or positional verbs transitivized with the instrumental postposition *o*, as in (16d), which might have temporal interpretations parasitic on their essentially aspectual or modal meaning. They include the following:

(16) a. *kute* *kà* *nhipêx* ***mã*** *jã*
3ERG canoe make.N to this
'the canoe he's about to make'

b. *kute* *kà* *nhipêx* ***ỳr*** *jã*
3ERG canoe make.N up.to this
'the canoe he almost made'

c. *kute* *kà* *nhipêx* ***kadjy*** *jã*
3ERG canoe make.N in.order.to this
'the canoe he's supposed to make'

d. *kute* *kà* *nhipêx* ***o*** ***ỹr*** *jã*
3ERG canoe make.N INSTR 3.sit.N this
'the canoe he's making'

These resources are also available in main clauses. Furthermore, there seems to be no substitute in relative clauses for some of the main clause left-peripheral particles such as *dja* 'future or irrealis' and *we* 'hearsay evidential'.

One characteristic of the nominal verb form used in relative clauses is that it is passive-like, in the sense that while in transitive finite main clauses the omission of the subject can only mean that it is recovered anaphorically from discourse context, the ergative subject of a relative clause, if omitted, triggers a generic interpretation for the agent, not unlike what happens in the English passive construction without a *by*-phrase.[6] Note the contrast between (17c) and (18c):[7]

(17) a. *ba* *hadju* *kate*
1NOM radio break.V
'I broke the radio.'

b. *hadju* *aj-kate*
radio ANTICAUS-break.V
'The radio broke.'

c. *hadju* *kate*
radio break.V
'S/he broke the radio.' (cannot mean: 'the radio was broken')

6. One might well ask if the ergative subject of embedded clauses is not a demoted subject, given its optional nature and its patterning with other obliques. There is however no 'active' counterpart to the 'passive' embedded verb, much as there is no passive counterpart to an active finite main verb, and thus there is no real demotion to speak of. Nominal forms of verbs are passive-like in the same way that nominalizations in many languages of the world, including several European languages, have been claimed to be (cf. Alexiadou 2001), i.e. because transitive subjects are generally introduced by *by*-phrases (the *by*-phrase is not the only choice in English, which can also rely on the Saxon genitive).

7. We can establish a parallel between this and what we said about relational nouns above: the transitive subject is obligatory in (finite) verbal clauses, but omissible in nominal ones; like the obligatory complement of relational nouns, the subject can be made generic in verbal clauses only by means of a generic noun such as *mẽ* 'people'.

(18) a. *ije* *hadju* *kaˇěk*
1ERG radio break.N
'the radio that I broke'

b. *hadju* *bi-kaˇěk*
radio ANTICAUS-break.N
'the radio that was broken' (not 'by him'); 'the radio that broke'

c. *hadju* *kaˇěk*
radio break.N
'the radio that was broken' (not 'by him'); 'the radio that broke'

Note, in particular, that the ergative subject can be omitted even when the anti-causative prefix is not present, (18c). We do not know the meaning difference between (18b) and (18c).

An additional passive trait of the nominal verb form is the fact that the ergative case is straightforwardly composed of an accusative pronominal mark governed by the element *je* (which has an allomorph *te* in the third person).[8] Other than for the ergative, *je* is also used as a reason-introducing postposition, as in the following construction:

(19) *bri* *pyma=je* *muw*
frog fear=for cry.V
'He wept for fear of the frog.'

8. The full paradigm of pronominal forms in the singular is therefore as follows:

	Nominative	Absolutive	Accusative	Ergative
1st	ba	i-	i-	ije
2nd	ga	a-	a-	aje
3rd	Ø	Ø	ku-/a-	kute

Absolutive and accusative pronominal forms are bound. Absolutive forms are used for the S and O functions of nominal forms of verbs, for the complements of relational nouns, and for the objects of most postpositions. Accusative is used for the O function of most finite verbs, and for the objects of a handful of postpositions. Ergative is used exclusively for the A function of nominal forms of verbs, while nominative is used for the S and A functions of finite verbs, but may often "duplicate" an oblique (i.e. ergative, dative, genitive or locative) subject in a main clause (see Reis Silva & Salanova 2000). For this reason, we have raised the possibility in Salanova 2008 that nominative pronouns are inflected auxiliaries. Nominative forms are also the forms that are generally used in non-argumental positions (i.e. focus, topic, or as stand-alone utterances).

3.2 There is no marking of the head

The head of the relative clause is not marked in any particular way; there are no relative pronouns or any special determiner for relative clause heads. Interrogative pronouns, which in many languages double as relative pronouns, do not have this function in Mẽbengokre, as the obligatoriness of the interrogative interpretation of the following sentences attests:

(20) a. *[aje mỳj mry par] nẽ kà kam ikwã?*
2ERG what animal kill.PL.N NFUT canoe in 3.lie
'What animal that you killed is lying in the canoe?'
(not: 'the animal which…')

b. *[aje nhũm kôt a-tẽm] nẽ kraje kà kuri dja?*
2ERG who with 2-go.N NFUT still canoe near stand.V
'Who that you went with is still standing next to the canoe?'
(not: 'the one who…')

This serves to show that interrogative pronouns are necessarily interrogative, and do not double as relative or indefinite pronouns.[9]

Though a series of pragmatic and information-structure factors put practical limits on interpretation, Mẽbengokre relative clauses are essentially ambiguous in many ways. Any governed noun phrase present in a relative clause can in principle be its head:

(21) *[kubẽ ku-te mẽ i-mã mẽkrĩdjà nhõr] nẽ jã*
barbarian 3-ERG PL 1-DAT chair give.N NFUT this
'These are the chairs that a/the white man gave us', or
'This is the white man that gave us some/the chairs.'

There is no restriction as to the grammatical function within the relative clause of the noun phrase that serves as head: noun phrases in adjunct roles are freely allowed, as attested in (22). Null third-person pronominals can also be interpreted as heads, in a construction that could be considered the equivalent of a free relative (cf. (23)). Free or headless relatives are treated in more detail in Section 3.5.

(22) *[kubẽ kôt i-tẽm] nẽ jã*
barbarian with 1-go.N NFUT this
'This is the white man with whom I went.'

(23) *[mẽ tũm kute arẽnh] nẽ jã*
PL old 3ERG 3.say.N NFUT this
'This is what the ancients told.'

---

9. *mỳj* 'what' does seem to have an indefinite use if and only if it is followed by a destressed demonstrative *ja* or *wa*: *mỳja* 'something', and *mỳjwa* 'whatever that is', somewhat pejoratively.

Note, though, that the relative clause cannot mean just anything associated to the event described.[10] Aside from the possibility of naming the event itself ('my going'), to be discussed later, the possible interpretations of Mẽbengokre internally-headed relative clauses are strictly linked to relativizable positions that are represented in the structure by a third person pronoun.[11]

(24) a. *kôt i-tẽm jã*
with 1-go.N this
'this one who I went with', 'me, the one that goes with him/her', 'my going with him/her'

b. *i-tẽm jã*
1-go.N this
'me, the one that goes', 'my going', but not 'the way/time I go', 'the one I go with', etc.

We take this to mean that the heads of relative clauses in Mẽbengokre can only be noun phrases, i.e. there are no relative clauses headed by adverbs such as *how* and *when*, whether overt or implicit. Implicit nominal arguments cannot head the relative clause either. This is an important point, which will be reiterated below: Mẽbengokre relative clauses cannot take on whatever circumstantial meaning is associated to a clause. They are clearly nominal, and may only refer to one of the overt nominal participants of the clause, save for the eventive interpretation mentioned above, which is examined in some detail in Section 5.1.

3.3 No restriction on positions that may be relativized

All positions in the clause can be relativized with the same strategy. We have noted no instances in which the accessibility hierarchy (Keenan & Comrie 1977) might be relevant to categorically rule out a particular construction in Mẽbengokre.

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10. For an example of what we are contemplating, see the description of Warlpiri adjoined (free) relative clauses by Larson (1982), which optionally take on meanings such as the time or other circumstances in which an event took place:

ngajulu-rlu-rna wawiri nyangu, kuja-npa pantu-rnu nyuntulu-rlu
I-ERG-1sg kangaroo see-PAST, COMP/AUX-2sg spear-PAST you-ERG

a. 'I saw the kangaroo which you speared'
b. 'I saw the kangaroo when you speared it'

11. The pronoun itself is often zero, as in the example given, but we know of its presence from the presence of the postposition *kôt*, which, like all postpositions, is relational, and implies a third person complement if none is present. See Section 3.5 for some discussion of null pronouns as heads of relative clauses.

The following examples were obtained through elicitation; their relative frequency in texts has not yet been investigated. Readers should be reminded of the potential for ambiguity in these sentences.

(25) a. Theme (direct object)

[ajbir a-je a-nhõ pur kurũm ***jàt*** *kadjàr] wã*
recently 2-ERG 2-POSS garden from yam uproot.N that

i-m a-ngã
1-DAT 2>3-give.V

'Give me that yam that you just took out from your garden.'

b. Instrument

[a-je ***katõk*** *o mry bĩn] dja ga i-m a-ngã*
2-ERG gun INSTR animal kill.N FUT 2NOM 1-DAT 2>3-give.V
'You should give me the gun that you use to kill game.'

c. Inessive location

[a-je ***ngôj*** *kam mry mrõ] wã i-m a-ngã*
2-ERG pot in meat cook that 1-DAT 2>3-give.V
'Give me that pot in which you cook meat.'

d. Superessive location

*[****pĩ*** *'ã akrô jet] wã dja ga a-ta*
tree on vine hang that FUT 2NOM 2>3-cut
'You should cut down that tree on which the vines are hanging.'

e. Proximate location

*[****kikre*** *kuri mẽ ãm] wã nẽ i-nhũnkwã*
house near people 3.stand.N that NFUT 1-home
'That house near which people are standing is my home.'

f. Direction

*[****pĩ*** *kôj Kajtire tẽm] wã dja ga a-ta*
tree towards Kajtire go.N that FUT 2NOM 2>3-cut
'You should cut that tree that Kajtire is walking towards.'

g. Agentive subject

*[****kubẽ*** *ku-te i-mã kàj nhãr] nẽ jã*
barbarian 3-ERG 1-DAT knife give NFUT this
'This is the white man that gave me the knife.'

h. Dative experiencer subject

*[****mẽ*** *ku-m bàri'y djành] bit ku-te kur*
people 3-DAT pepper like only 3-ERG eat.PL.N
'Only those people that enjoy pepper eat it.'

i. Dative recipient or beneficiary (indirect object)

[i-je i-nhõ ***bikwa*** *mã idji jarẽnh] nẽ bôx mã*
1-ERG 1-POSS relative to 3.name say.N NFUT arrive about.to
'The relative of mine to whom I gave a name is about to arrive.'

j. Possessor

[kubẽ *nhõ kà tũm] nẽ jã*
barbarian POSS canoe old NFUT this
'This is the white man with the old canoe.'

Relativizing out of a multiply-embedded position is also possible:

(26) a. Location within a direct object

i-je ***pĩ*** *kam menh nhõpôk jã*
1ERG tree in honey bore.N this
'this tree in which I made a hole to get honey'

b. Inalienable possessor within an instrumental

mẽ ku-te ***pĩ*** *ỽ̃ o menh kangrĩnh jã*
people 3-ERG tree leaf with honey wrap.N this
'this tree whose leaves people use to wrap honey'

When multiple subjects are present, multiple embedding is avoided, perhaps because the resulting construction is inherently clumsy or difficult to process, as it would have several subjects in sequence separated from the predicates with which they belong.[12] Note the following examples:

(27) a. *[a-je pĩ ỽ̃ã i-je katõk nhôr pumũnh] wã*
2-ERG tree on 1-ERG gun hang.N see.N that
'that tree where you saw me hang my gun'

b. *[a-je amũjãỽ̃ã i-je krajkà jadjàr pumũnh] wã*
2-ERG yesterday 1-ERG pants put.on.N see.N that
'those pants that you saw me wear yesterday'

(28) a. *amrẽ [i-je ngôj kuỽ̃õnh mã] i-mã angã*
here 1-ERG pot wash.N in.order.to 1-DAT 2>3.give.V
'Give me the pot that I'm supposed to wash.'

---

12. As in the following hypothetical example (valid in principle for any head-final language with internally-headed relative clauses):

[The dog [you the man met] bit] has rabies.
'The dog that bit the man that you met has rabies.'

A similar effect can be obtained in head-initial languages such as English:
The dog [that the woman [that John loves] owns] has rabies.

b. *amrẽ i-mã [i-je ngôj ku'õnh mã i-prĩ ket*
here 1-DAT 1-ERG pot wash.N in.order.to 1-careful NEG
rã'ã] wã ngã
yet that give.V
'Give me that pot that I did not yet wash carefully.'

c. *[i-je pidjô ka'ur kêt] jã kuni dja ga ka'u*
1-ERG fruit pick.N NEG this all FUT 2NOM pick.V
'You should pick all the fruit that I did not pick.'

Examples such as those in (28) might seem completely unremarkable, were it not for the fact that, as we have argued in Salanova (2008), negation, manner modifiers, and most other post-verbal elements, are actually predicates that take as their sole arguments a nominalized clause. Such sentences therefore contain several layers of embedding.

3.4 Definiteness of the internal head

It has been noted in the literature on internally-headed relative clauses that internal heads are normally required to be indefinite (cf. Williamson 1987). We have noted no such restriction in Mẽbengokre, where demonstratives can occur on the nouns that head the relative clause, and even discourse participants can be heads (cf. 29e).

(29) a. *djãm nẽ ga [ku-te djudjê kênh] pumũ*
INT NFUT 2NOM 3-ERG weapon carve.N see.V
'Did you see the one that carves bows?'

b. *djãm nẽ ga [meõ ku-te djudjê kênh] pumũ*
INT NFUT 2NOM someone 3-ERG weapon carve.N see.V
'Did you see someone who carves bows?'

c. *djãm nẽ ga [kubẽ ku-te djudjê kênh] pumũ*
INT NFUT 2NOM barbarian 3-ERG weapon carve.N see.V
'Did you see the white man that carves bows?'

d. *djãm nẽ ga [kubẽ jã ku-te djudjê kênh] pumũ*
INT NFUT 2NOM barbarian this 3-ERG weapon carve.N see.V
'Did you see this white man that carves bows?'

e. *djãm nẽ ga [i-je djudjê kênh] pumũ*
INT NFUT 2NOM 1-ERG weapon carve.N see.V
'Did you see me, the bow carver?' (also: 'Did you see me carving bows?', and 'Did you see the bow I carved?')

It seems like a logical necessity that a relative clause headed by a discourse participant (i.e. a first or second person pronoun) should be non-restrictive. For the other examples, the question of whether the interpretation of a particular relative clause

is restrictive or non-restrictive is not always clear cut. Elements that normally have a deictic function do not always designate definite entities, allowing a relative clause to still function restrictively, as in the following use of *this*:

(30) Somebody at work got their clothes caught in this machine that punches holes on cardboard.

We suggest that this not fully definite use of demonstratives might be at play in some of the Mẽbengokre examples given above.[13]

We do not have much to say in this paper about non-restrictive relative clauses beyond noting their superficial similarity to the restrictive internally-headed relative clauses that we have described so far.

3.5 Heads can be dropped

As was exemplified in (23) above, overt nominal heads may be replaced by third person pronouns, often null. The extent to which this is possible may be appreciated by contemplating the following examples, which parallel those in (25), with overt heads. Translation is tricky, as most of these free relative clauses contain demonstratives, and so are more specific than a translation which uses an indefinite pronoun might suggest. Like with the sentences in (25), the sentences below are potentially ambiguous.[14]

(31) a. Theme

[ajbir a-je a-nhõ pur kurũm — kadjàr]
recently 2-ERG 2-POSS garden from uproot.N

wã i-m a-ngã
that 1-DAT 2>3-give.V

'Give me what you just took out from your garden.'

b. Instrument

[a-je — o mry bĩn] dja ga i-m a-ngã
2-ERG INSTR animal kill.N FUT 2NOM 1-DAT 2>3-give.V
'Give me what you use to kill game.'

c. Inessive location

[a-je — kam mry mrõ] wã i-m a-ngã
2-ERG in meat cook that 1DAT 2>3.give.V
'Give me what you cook meat in.'

---

13. We also refer the reader to the examples in (20), in which the interpretation of the head is interrogative rather than indefinite.

14. For clarity, when the gap is null, we indicate it with a dash.

d. Superessive location

[— ’ã akrô jet] wã dja ga a-ta
on vine hang that FUT 2NOM 2>3-cut
‘You should cut down what has the vines on it.’

e. Proximate location

[— kuri mẽ ãm] wã pumũ
near people 3.stand.N that look.V
‘Look at the one near which people are standing.’

f. Other locative

[krĩ nhipôkri — ãm] wã ỳr tẽ
village middle 3.stand.N that up.to go.V
‘Go up to the one that is standing in the middle of the people.’

g. Dative experiencer subject

*[**ku**-m bàri’y djành] bit ku-te kur*
3-DAT pepper like only 3-ERG eat.PL.N
‘Only those that like pepper eat it.’

h. Dative recipient or beneficiary

*[i-je **ku**-m idji jarẽnh] nẽ bôx mã*
1-ERG 3-DAT 3.name say.N NFUT arrive about.to
‘The one to whom I gave a name is about to arrive.’

i. Possessor

[— õ kà tũ]m] nẽ jã
3.POSS canoe old NFUT this
‘This is the one with the old canoe.’

Rather than appearing to represent a different strategy (gapping, as opposed to an internal head), these sentences, matching all of the head-internal constructions in (25), seem to imply that the internal head can be done away with, and that, when it is present, it has simply a restrictive role.

What is striking about all of this is that free relatives are constructed with gaps, rather than with indefinite pronouns. These gaps are, in fact, identical to non-deictic third person inflection in Mẽbengokre. So it appears to be the case in this language that third person pronouns can be systematically interpreted as either variables bound by a relative operator, or as regular non-deictic (i.e. discourse- or topic-anaphoric) pronouns. This is essentially the same ambiguity that one finds in bare nouns, which can be bound by a relative operator, and thus serve as heads of the relative clause, or have reference on their own (i.e. be interpreted as definite or specific) without the need for any differentiating morphology. These ideas fall outside of the scope of this paper, and will have to be developed elsewhere.

4. External characteristics of relative clauses

In this section we address three descriptive points: (a) the nature of the elements that appear outside relative clauses, (b) external heads, and (c) the position and distribution of relative clauses within finite sentences.

4.1 The nature of RC-external elements

All of the external elements about which we will talk appear to the right of the relative clause. In addition to the nominal mark on the verb itself, we need to mention the classifying elements *djà*, *djwỳnh*, and the demonstratives *jã*, *wã* (and their stressless versions *ja*, *wa*). All of these elements may be clearly seen in the following example: [15]

---

15. The nominal mark (N) is not segmentable in our analysis. In Salanova (2004, 2007b), we have argued that nominal forms of verbs are basic, both semantically and morphologically, and finite verbs are derived from them. Note that the shape of the finite form can normally be predicted from the nominal form, but not vice-versa, as the following examples attest:

Nominal form	*Verbal form*	*Gloss*
apêx	apê	to finish
djam	dja	to stand up
kurwỳk	kurwỳ	to light up
bãr	bã	to smell
rênh	rê	to take
rêr	rê	to pluck out (tr.)

In other cases, there is partial suppletion and other irregularities; these are treated in [2004]:

Non-finite form	*Finite form*	*Gloss*
djupjêr	djupij	to carry on the shoulders
ngjênh	ngij	to plant
kanhwỳr	kanhuw	to pierce
rwỳk	ruw	to descend
mỳr	muw	to cry
ka'êk	kate	to break
ka'uk	katuw	to smash

We contend that the consonant that ends the nominal form is truncated in the finite verbal form. This suggestion was made by Santos (1997) regarding the related language Kĩsêdjê. The reason for choosing truncation over suffixation is that if the final consonant were to be added in the nominal form, one would have to set up arbitrary morphological classes that are unnecessary in the truncation approach. We do not go here into the semantic reasons

(32) *kadjur djà jã*
pick.N *djà* this
'this instrument to pick'

We have been considering the rightmost element of the relative clause to be the nominal form of the verb. The reason for not including any of the words further to the right is that, as we will see below, both the classifying elements and the demonstratives seen there may appear in any type of noun phrase, and not just in relative clauses.

The morphemes *djà* and *djwỳnh* are used to create a large repertoire of what could be intuitively called "lexical" nominalizations, such as the following:

(33) a. *i-djà-kur-djà*
1-ANTIPASS-eat.N-*djà*
'My eating utensils', but also: 'my eating place', 'my food', etc.

b. *pi'ôk-jarẽnh-djwỳnh*
writing-say.N-*djwỳnh*
'teacher'

In the literature on other Jê languages (cf. e.g. de Oliveira 2005), these morphemes have been considered to be an instrument and an agent nominalizer, respectively. Our contention is that what the "nominalizers" attach to is already nominal (i.e. it is by itself a nominalized verb that heads a relative clause),[16] and they themselves are no more than the relational nouns *djà* 'container' and *djwỳnh* 'master', which might have acquired a semi-grammaticalized function as classifiers, or simply have a broader meaning than what might appear from their normal nominal use, exemplified here with a third person inalienable possessor:

(34) a. *wỳj nẽ jã*
3.master NFUT this
'This is the one who knows about it/is responsible for it/is its owner.'

b. *hà nẽ jã*
3.container NFUT this
'This is its container.'

What is the relation between these nouns and the nominalized clause? We propose (cf. Salanova 2006) that it is exactly what the morphosyntax indicates: the bleached noun *djà* or *djwỳnh* heads the construction, and takes as its sole argument

for supposing that nominal forms are basic. The interested reader should consult Salanova (2007b, 2007a).

16. In fact, the contained nominalization may also be an eventive complement clause, something which is presented more fully in Section 5.1.

a nominalized clause. In such a configuration, the nominalized clause takes on an eventive meaning, i.e. naming the action, usually in a generic way (see Section 5.1). The bleached nouns refer to an instrument or an agent related to the named event, but the relation with a specific argument position is accidental, that is, it is a consequence of the semantics of *djà* or *djwỳnh*, and is not due to any morphosyntactic operation binding specific positions within the nominalization. Thus, (33b) is quite literally "the master of saying writing", (33a) "the instrument of my eating", and so on.

The nouns *djà* and *djwỳnh* cannot be external heads: as we saw in (24) above, what is interpreted as the head of an internally-headed relative clause has to be a null pronoun or a noun phrase in a governed position. This is not the case in either of the examples in (33). In addition, *djà* and *djwỳnh* are compatible with an overt internal head, as in (35)–(37).

(35) *amrẽ i-mã [pry karêr] djà ngã*
here 1-DAT path clear.N container give.V
'Give me the path-clearer.'

(36) *amrẽ i-mã [a-je kàjpoti o pry karêr] djà ngã*
here 1-DAT 2-ERG hoe INSTR path clear.N instrument give
'Give me the hoe that you use to clear the path.'

(37) *[kubẽ ku-te pi̊ôk jarẽnh] djwỳnh nẽ jã*
barbarian 3-ERG paper say.N master NFUT this
'This is the white man that teaches.'

Furthermore, *djà* and *djwỳnh* occur in many other expressions that are not derived from clauses:

(38) a. *màtkà djwỳnh*
airplane master
'pilot'

b. *katõk 'y djà*
gun nut container
'bag for ammunition'

Djwỳnh also has a use where it is translated by the non-intersective adjective 'true', as in the following examples:

(39) a. *bẽnjadjwỳr djwỳnh*
chief true
'leader that can perform the *bẽn* chant' (*bẽnjadjwỳr* is used contemporarily for any leader)

b. *i-nhõ bikwa djwỳnh*
1-POSS relative true
'my relatives' (*bikwa* is used contemporarily with the meaning 'friend')

In this it is in oposition to *kaàk* 'ersatz', used, e.g. to designate classificatory kin as opposed to consanguines.

Though it is not simple to relate the various uses of *djwỳnh* to a common semantic core, there seems to be little morphological basis to distinguish among them. We note that there might be a correlation between the more grammatical use in (33b) and destressing, but this has not been verified systematically.

To conclude, *djà* and *djwỳnh* are just special relational nouns, that attach to a structure that is already a nominalization with eventive meaning. Their sense as instruments or agents comes from their semantics, rather than being a specific morphosyntactic function.

The demonstratives *jã* 'this' and *wã* 'that' can appear after a relative clause just as they may appear after any nominal expression (cf. Section 2). In fact, any of the determiners described in that section may occur with relative clauses. We make special mention of *jã* and *wã* here because they seem to be much more common with relative clauses than they are with other nominal expressions, particularly in their stressless forms *ja* and *wa*. The reasons for this are unclear, though we venture to say that the demonstratives may serve to highlight that the preceding nominal clause is to be interpreted as an individual or a set of individuals, rather than as an eventive clause (cf. Section 5.1).

It was said in Section 2 that we have insufficient evidence to consider the stressless demonstratives to be determiners. There is nevertheless a correlation between stress and deixis, with stressed determiners being clearly deictic, and the stressless ones less frequently so. The deictic use is not excluded for *ja* and *wa*, however. In particular, in the following third person pronouns, it seems to be the case that it is *ja* and *wa* that contribute the deictic meaning:[17,18]

(40) a. *tãm ja*
s/he this
'her/him here (deictic)'

b. *tã wa*
s/he that
'her/him there (deictic)'

c. *tãm*
s/he
'her/him (anaphoric)'

---

17. The /m/ of *tãm* is lost in *tãm wa* because of a phonological rule barring sequences of labial consonants.

18. The difference between *tãm* and the equally anaphoric zero third person is simply one of emphasis.

Stressless demonstratives after relative clauses are often also interpreted deictically:

(41) *tẽm ja*
go.N this
'this one here that is going'

4.2 External versus internal heads

We have described Mẽbengokre relative clauses as essentially head-internal. A variant where the head is external was briefly introduced above (cf. (12)), but was deemed not to be grammaticalized as a relative clause. However, it is fairly frequent to see relative clauses with the head on the left, rather than at its expected argument position, without a pause or a second determiner between the head and the remainder of the relative clause:

(42) a. *[kukryt a-je pĩ kuri omũnh] nẽ wã*
tapir 2-ERG tree near 3.see.N NFUT that
'That is the tapir which you saw near the tree.'

b. *[kubẽ i-je ku-m katõk nhãr] nẽ jã*
barbarian 1-ERG 3-DAT gun give.N NFUT this
'This is the white man to whom I gave the gun.'

As can be seen, in place of the dislocated constituent there is a resumptive third person pronoun: *ku-* in example (42b), a morphophonological alternation at the beginning of the verbal stem in example (42a), and zero in other cases. This is the strategy used in all left-dislocation in Mẽbengokre, i.e. focus (cf. (43a)) and substantive interrogatives (cf. (42b)), and is also what is used in the gap of free relatives (cf. (43c)):

(43) a. *kukryt nẽ ba ku-bĩ*
tapir NFUT 1NOM 3-kill.V
'I killed *tapir*.'

b. *mỳj nẽ ga a-bĩ*
what NFUT 2NOM 2>3-kill.V
'What did you kill?'

c. *i-je ku-m Kajtire jarẽnh jã*
1-ERG 3-DAT Kajtire say.N this
'this one to whom I gave the name Kajtire'

If the displaced constituent is within a postpositional phrase, variants where the preposition is stranded coexist with those where it is carried along to the initial position:

(44) a. *amrẽ i-mã [a-je kàjpoti o pry karêr] ngã*
hither 1-DAT 2-ERG hoe with path clear.N give.V
'Give me the hoe that you use to clear the path.'

b. *amrẽ i-mã [kàjpoti a-je o pry karêr] ngã*
hither 1-DAT hoe 2-ERG with path clear.N give.V
'Give me the hoe that you use to clear the path.'

c. *amrẽ i-mã [kàjpoti o a-je pry karêr] ngã*
hither 1-DAT hoe with 2-ERG path clear.N give.V
'Give me the hoe that you use to clear the path.'

As much as these might seem like a different, externally-headed, type of relative construction, and one which would not be subject to the ambiguity that regular internally-headed relatives exhibit, there is evidence that serves to characterize them as mere variants of the internally-headed construction. First, like in the case of free relatives, these constructions have exactly the same range of relativization possibilities found in internally-headed relative clauses, casting doubts on any analysis that sets them apart. Much more conclusively, the fronted constituent does not have to be interpreted as the head of the relative, as is attested by the fact that example (45b) is not restricted to being headed by *kàjpoti* 'hoe', and in fact has the same range of meanings as (45a):

(45) a. *nãm i-mã [kubẽ ku-te kàjpoti o pry karêr] jakre*
so 1-DAT barbarian 3-ERG hoe with path clear.N show.V
i. 'So he showed me the white man that's clearing the path with a hoe.'
ii. 'So he showed me the hoe that the white man is clearing the path with.'
iii. 'So he showed me the path that the white man is clearing with a hoe.'

b. *nãm i-mã [kàjpoti o kubẽ ku-te pry karêr] jakre*
so 1-DAT hoe with barbarian 3-ERG path clear.N show.V
(same range of interpretations)

What to do, then, about the displaced constituent? We need to revise a claim made earlier with respect to (15), and admit that internally-headed relative clauses do permit some sort of focus dislocation within them. This focus dislocation seems to work just like in main clauses in that it requires resumption by pronominal agreement in the argument position. However, contrary to what holds in matrix clauses, focus is not associated with specific left-peripheral particles. The upshot is that even in constructions like (42) heads are still internal to the relative clause.

We conclude that all the relative clauses discussed previously are variants of a single structure. The axes of variation consist in the possibility of completely dropping nominal arguments (Section 3.5), and in the possibility of fronting a

single argument (see earlier this section), without necessarily making it the head of the construction. As for (12), the apposition of a regular noun phrase and a free relative, creating the impression of an externally-headed relative clause, is a construction not grammaticalized specifically for relative clauses.

4.3 Dislocation of relative clauses

We have noted no restrictions as to which argument or adjunct positions may be occupied by relative clauses. The following examples attest relative clauses in subject, object, and indirect object position:

(46) a. *[mẽ abatàj ku-te djudjê kênh mar] bit nẽ ipêx*
PL adult 3-ERG bow carve.N hear.N only NFUT 3.make
'Only the adults that know how to carve bows make them.'

b. *djãm nẽ ga [mẽ̃õ bêengêt ku-te djudjê kênh*
INT NFUT 2-ERG someone elder 3-ERG bow carve.N
mar] pumũ?
hear.N see.V
'Do you know any elder who knows how to carve bows?'

c. *[a-kamy ku-te i-kanikwỳnh ỳr mõr jã] m a-ngã*
2-brother 3-ERG 1-sister up.to go.N this DAT 2>3-give.V
'Give it to this brother of yours that is married to my sister.'

Yet if the reader goes back to the examples given so far (cf., e.g. (25)), s/he will note that, rather than appearing in its proper argument position, the relative clause is often dislocated to the left of the containing clause.[19] The dislocated relative clause is obligatorily doubled by a pronoun in the argumental position where the relative clause is interpreted, just like any other left-dislocated noun phrase (cf. (43)). The left-dislocated relative clause in (47a) is interpreted in object position, and for this reason it is doubled there by the pronominal prefix *a-* (2>3).[20] The relative clause may also appear directly in object position, as in (47b), in this case without the object prefix. This pattern of left-dislocation with resumption is not exclusive to

19. This left-dislocated position is the position refered to in Section 3.1 above as the *focus position*, and it precedes the tense markers *nẽ* (NFUT) and *dja* (FUT).

20. If the subject of a transitive finite verb is in the second person, third person object agreement on the verb will be replaced by this portmanteau form (second person subject acting on third person object) which is homophonous to second person agreement.

relative clauses, however; the examples (48) show the same thing happening with a simple noun phrase.

(47) a. *[a-je ngôj kuỗnh] dja ga i-m a-ngã*
2-ERG pot clean.N FUT 2NOM 1-DAT 2>3-give.V
'You should give me the pot you cleaned.'

b. *dja ga i-mã [a-je ngôj kuỗnh] ngã*
FUT 2NOM 1-DAT 2-ERG pot clean.N give
'You should give me the pot you cleaned.'

(48) a. *ngôj dja ga i-m a-ngã*
pot FUT 2NOM 1-DAT 2>3-give.V
'You should give me the/a pot.'

b. *dja ga i-mã ngôj ngã*
FUT 2NOM 1-DAT pot give.V
'You should give me the/a pot.'

There is one variant of the left-dislocation construction with no intervening tense mark which seems to be exclusive to dislocated relative clauses, however:

(49) a. *[a-je ngôj kuỗnh] i-m a-ngã*
2-ERG pot clean.N 1-DAT 2>3-give.V
'Give me the pot you cleaned.'

b. **ngôj i-m a-ngã*
pot 1-DAT 2>3-give.V

On closer inspection, it appears that all noun phrases greater in complexity than a bare noun, and not only those containing a relative clause, allow this type of dislocation. This might be suggestive of either a prosodic constraint or some sort of definiteness or specificity restriction which we are in no position to investigate at this point:

(50) a. *ngôj ny i-m a-ngã*
pot new 1-DAT 2>3-give.V
'Give me the new pot.'

b. *ngôj jã/wã i-m a-ngã*
pot this/that 1-DAT 2>3-give.V
'Give me this/that pot.'

c. *ngôj ỗ i-m a-ngã*
pot one 1-DAT 2>3-give.V
'Give me some pot or other.'

Left-dislocation is an important element in the characterization of certain types of relative-like constructions, such as correlatives (Srivastav 1991) and the fronted relative clauses of Lummi (Jelinek 1993). Despite its frequency, we do not give fronting a central place in the description of relative clauses in Mẽbengokre, as it is optional and it is not in any way exclusive to relative clauses.[21]

5. General characterization of relative clauses

Though the use of resumptive pronouns is sub-standard and somewhat unnatural-sounding in the most familiar languages, one might attempt to understand Mẽbengokre relative clauses by comparing them to the relative clauses with resumption in Brazilian Portuguese, such as the following:

(51) *o cara que o João disse que ele tinha visto ele …*
the guy that John said that he had seen him
'The guy that John said *he* had seen *him*.'

In such a clause, both gaps are filled by resumptive pronouns, like in Mẽbengokre, and the relation between the external head and the gap is unselective, i.e. any of the RC-internal pronouns could be bound by "the guy", even if stress and pragmatics make us lean towards one or other interpretation.

Structurally, however, there are several important differences between a finite externally-headed relative clause such as (51), and the nominal internally-headed relative clauses of Mẽbengokre. Some of these differences should be clear from the discussion above: in addition to being head-internal, Mẽbengokre relative clauses are nominal, thus non-finite, and they are reduced with respect to main clauses. In this section, we will be primarily concerned with showing another difference, namely that relative clauses are not adjoined to anything, i.e. they are self-contained noun phrases.

Relative clauses are commonly analyzed as being necessarily adjoined to an external head. This has often been defended even for internally-headed relative clauses, e.g. by Cole (1987), who holds that Quechua internally-headed relative clauses have a structure headed by a null external head, to which the visible part of the relative clause is adjoined.

21. The reasons for the preponderance of dislocated relative clauses might have to do with the problem described in fn.13.

On the contrary, we contend that internally-headed relative clauses in Mẽbengokre never have an external head. This is a corollary of a more general property of Mẽbengokre: there is no adjunction inside noun phrases (or elsewhere, in fact) other than of postpositional phrases:

(52) a. **tũm* *kikre*
old house

b. *kikre* *tũm*
house old
'house that is old'

c. **bô* *kikre*
hay house

d. *bô=o* *kikre*
hay=INSTR house
'house made of hay'

As we anticipated in Section 2, "adjectives" inside a noun phrase are always the syntactic head of the construction; i.e. they seem to constitute a special case of internally-headed relative clause, rather than standing as a class of their own. In morphosyntactic terms, they are relational predicates that take their modifiees as complements.

Take a noun phrase containing an adjective, such as (53), repeated from (10a). This construction, in addition to being a noun phrase, is a complete clause on its own which means 'his/her/its name(s) is/are beautiful'.

(53) *idji* *mex*
3.name beautiful
'beautiful name(s)'

The same can be said about similar constructions with nominal or deverbal predicates, also repeated from example (10):

(54) *ngy* *bor*
clay bake.N
'baked clay', or 'the clay is baked'

(55) *mẽ* *kra-re*
people son-DIM
'the people with children', or 'the people have children'

In all of these constructions, going from a main clause to a noun phrase requires no additional morphology, and could be characterized semantically as shifting the reference from the predicate on the right to the entity on the left, while keeping

the hierarchical relations the same.[22] Without going too much into this issue, as it would take us too far afield, we assume that the basic sense is the predicational one, and that the adjectival sense is not a specific construction for modification, but essentially a sentence that has been shifted into a relative clause, no different from the internally-headed relative clauses that are the focus of this paper.

5.1 Comparison with complement and adjunct clauses

Complement and adjunct clauses that are formally identical to internally-headed relative clauses can get eventive, as opposed to participant, interpretations. This can be seen in direct perception constructions:

(56) *ba* *àk* *kàr* *ma*
1NOM fowl coo.N hear
'I heard the bird calling.'

Arguably this is also the interpretation they get when they are complements of manner predicates:

(57) *a-dju-jarẽnh* *mex*
2-ANTIPASS-say.N good
'You spoke well.' (lit.: 'Your saying was good.')

Note, however, that even apparently derivative interpretations, such as "the fact that", are lacking in these constructions. To reiterate a point made above: though Mẽbengokre nominalizations might give the impression that they can mean virtually anything related to the event described in the clause, they are limited to meaning either the event itself, or one of the participants in the event which is explicitly represented in the clausal syntax.

It is natural to expect the eventive interpretation as a possible reading of the relative clause if we take the nominal forms of verbs to be in essence like any other noun. To explain this, we begin by repeating example (10c):

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22. Note that this is no different from a shift that normally obtains in complex noun phrases:

(67) *pĩ* *kre*
wood hole
'hole in the wood', 'the wood is hollow', or 'hollow wood'

That is, in such a noun phrase, the noun on the right, normally the head, can also act as a modifier without requiring any change in the morphosyntax of the phrase. Technically, to show that the hierarchical relations stay the same despite the shift in headedness, we would need to give an example with more than one level of embedding, something which we omit for lack of space.

(58) *mẽ* *kra-re*
people son-DIM
'people with children' (also 'people's children')

In our view, both interpretations have the same structure, and are ambiguous simply in that in one interpretation the element on the right is referential, and the one on the left is taken as an inalienable possessor, whereas in the other interpretation the one on the right becomes some sort of predicate ('to have children'), without nominal reference.

It is natural to suppose that this ambiguity occurs with other types of predicates that one might consider to be "adjectival" or "verbal", given that there is no morphological distinction between these and the nominal example in (58). This is what is shown by the other two examples in (10), repeated here, with the putative second interpretation added:

(59) a. *idji* *mex*
3.name beautiful
'beautiful names' (does it also mean 'the beauty of the names'?)

b. *ngy* *bor*
clay bake.N
'baked clay' (does it also mean 'the baking of the clay'?)

We contend that this second interpretation is indeed present, and this can be seen in the way that manner modification works. Take the following examples:

(60) a. *mẽ* *mex*
people beautiful
'The people are beautiful.' (Also 'beautiful people.')

b. *i-mex*
1-beautiful
'I'm beautiful.' (Also 'beautiful me.')

(61) *mẽ* *tor* *mex*
people dance.N beautiful
'The people dance beautifully.' (lit., 'The people's dancing is beautiful.')

As can be seen in these examples, *mex* 'beautiful' is simply a predicate that normally takes nominal arguments. Like with all predicates, it also has a modifying function. There is no reason to suppose that the structure is any different in the case in which *mex* takes a clausal expression in nominal form as an argument. The literal translation of (61) that would be consistent with this would be 'The people's

dancing was beautiful.'[23] For this, the only additional assumption that is needed is that the embedded nominal clause can indeed designate 'the dancing'.

Note that the meaning of the embedded nominalization is crucially *not* that of a proposition, but rather is a description of an event,[24] so (61) cannot mean 'It was good that the people danced (otherwise it would have been a boring night).'

A similar point can be made with negation. The Mẽbengokre negative word *kêt* is essentially existential negation:

(62) a. *tep kêt*
fish NEG
'There is no fish.'

b. *i-kêt=ri*
1-NEG=when
'When I did not exist.'

(63) *mẽ tor kêt*
people dance NEG
'The people don't dance.' (Lit., 'There isn't any dancing of the people.')

Is there any reason to suppose that (63) is a radically different construction? The answer is no, and again the only prerequisite to equate the structure of (62) and (63) is that the reading where *mẽ tor* is headed by *tor* 'dancing' is available for the latter.[25]

Why does manner modification work like this in Mẽbengokre? We suspect that it is because the language drastically restricts adjunction: there are no open classes of adjectives or adverbs, and, as we saw above, relative clauses are not adjoined either. This, coupled with the fact that finite clauses can't be embedded, is the reason why nominal forms are so pervasive in the language.[26]

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23. A similar point is made by Arregui and Matthewson (2001) in discussing manner modification in Salish, which seems to parallel the construction discussed here:

(68) St'át'imcets
skenkín ti n-s-xát'-em-a ta sqwém-a
slow DET 1SG.POSS-NOM-hard-INTR-DET DET mountain-DET
"I walked up the hill slowly (lit., my walking up the hill was slow)"

24. A formalization of this distinction, which is recognized since Vendler (1967), is advanced by Zucchi (1993).

25. For parallels with Salish also in the functioning of negation, see Davis (2005).

26. For a more detailed presentation of this analysis, the reader is referred to Salanova (2007b).

Note that all along we have been talking about the nominal forms of verbs. When verbs are finite there is never any ambiguity as to the fact that there is a clause where the existence in time of a particular event is claimed:

(64) *mẽ* *bà* *kam* *mõ*
people forest in go.PL.V
'The people are going to the woods (hunting).' (never 'the people that are going to the woods', or 'the going of the people to the woods')

In Salanova (2007b) we discuss the nominal-verbal opposition in event words further, and in more precise terms.

6. Conclusions

Our conclusion is that relative clauses in Mẽbengokre are self-contained noun phrases, no different from any noun phrase in the language where there is relationality, whether because the noun itself is relational or because relationality has been introduced by means of a postposition.

Mẽbengokre noun phrases are syntactically very rigid objects: relatively few word order permutations are permitted, and there is little leeway for different semantic interpretations of relations between heads and their complements (i.e. in contrast to the freedom found in English compounds such as *man breasts*, *deprivation cuisine*, *math anxiety*, etc.), at the same time that hierarchical relations between elements are always clearly indicated. This is true for any nominal construction that has relationality, whether it is a simple inalienably possessed noun or a more complex clause-like construction.

On the other hand, there seems to be absolute freedom as to what element within the construction is to be taken as the head, with the whole complement string of words becoming a modifier. This is a rather striking, and even puzzling, property. We believe that this property comes about from the lack of morphological elements within the noun phrase which fix reference (i.e. determiners and quantifiers), leaving the intended meaning to be disambiguated by context. Much research in the domain of nominal semantics in Mẽbengokre is required before we can venture any hypothesis about how this works, and in particular why the morphological elements that do exist (i.e. especially the demonstratives) do not do the job.

In closing, we should say that even though we believe that the construction described in this paper is the only one that can properly be called a relative clause, relative clause equivalents may often be expressed by means of sequences

of coordinated finite main clauses, where an element introduced in the first clause is recovered anaphorically with the emphatic pronoun *tãm* or *ta*:

(65) *ikua, tãm ku, itu, tãm oikõ*
excrete.V it eat.V urinate.V it drink.V
'He ate what he excreted, he drank what he urinated.'
(lit., 'he excreted, he ate it, he urinated, he drank it.')

(66) *meʔõ nẽ amũjãʔã mẽ kôt amijaprã, ta nẽ jãkam*
someone NFUT before people with feast.V he NFUT now
ajte amrẽ tẽ
again hither go.V
'The one that feasted with us earlier is coming again.'
(lit., 'the one that feasted with us earlier, he is coming again.')

We do not consider these constructions to be grammaticalized as relative clauses. It simply is the case that the language has two anaphoric pronouns, *tãm* and *ta*, that preferentially recover a referent introduced in the immediately preceding discourse, but which, as is clear from example (65), does not need to have been introduced grammatically.

Abbreviations

ACC	accusative	NEG	(existential) negation
ANTICAUS	anticausative	NFUT	nonfuture
ANTIPASS	antipassive	NOM	nominative
DAT	dative	POSS	possessive
ERG	ergative	V	verbal
FOC	focalized	1, 2, 3	person marks
INSTR	instrumental	2>3	agreement for second person subject acting on third person object
INT	interrogative		
N	nominal		

Locative and comitative postpositions are glossed using plain English words for convenience. Third person inflection is sometimes zero or is expressed by truncation of an initial consonant; in the former case it is not glossed, as the form in question is identical to the uninflected stem; in the latter case it is glossed as inseparable from the stem. Some verbs make no morphological distinction between the nominal (or non-finite) and verbal (or finite) forms; in these cases, N and V are

not indicated in the glosses; whether the use is nominal or verbal should be clear from the surrounding examples.

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Clause embedding strategies in Baure (Arawakan)

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This article is a survey of clause linking strategies in the South Arawakan language Baure. Since both coordinate and subordinate adjoined clauses are similar to main clauses, the major focus of the paper is on embedded clauses. Embedded clauses, which are formed by means of nominalization of the predicate, include relative clauses and complement clauses. The specific embedding strategies are contrasted structurally and semantically, which reveals how similar relative and complement clauses are in Baure.

1. General information

The seriously endangered Baure language is spoken in the Bolivian Amazon, in the small town Baures and its surrounding communities. Baures is situated at the Río Negro and close to the Río Blanco, indirect tributaries to the Río Guaporé, which defines the border between the north-east of Bolivia and Brazil. Baures is an isolated town, and the nearest bigger town Trinidad, the capital of the Beni department, can generally only be reached by small Cessna airplanes.

Baure is a South-Arawakan language, and there are two other dialects spoken in El Carmen (Carmelito) and San Joaquín (Joaquiniano). The most closely related Bolivian South-Arawakan languages are the Moxo languages Trinitario and Ignaciano, and Paunaca. The relationship is reflected by shared basic vocabulary of flora and fauna terminology and formally similar personal pronouns and grammatical morphemes. Baure can mainly be distinguished from the other South Arawakan languages by its process of final vowel elision (Baptista & Wallin 1968) and its specific ordering of grammatical morphemes.[1] In addition,

1. Because of the final vowel elision, metathesis, and other morphophonological processes, the examples have separate lines for the representation for the phonological words and their morphological structure.

all Arawakan languages have a system of nominal classification, but even the most closely related languages Baure and Moxo differ in the semantics of their noun classes, even though the classifiers may formally be similar.

The data for the analysis of Baure presented here stem from a variety of sources. The literature on Baure was taken into account from the first publications (Adam & Leclerc 1880) up to the published and unpublished material collected by the SIL linguists Baptista & Wallin (1967, 1968). In addition, the author collected a large amount of data on fieldtrips between 2003 and 2006,[2] consisting of elicited material, dialogues, songs, and a number of narratives. The main conclusions have been drawn on the basis of text data, whereas elicitation was used to confirm and complete the findings.

The paper is structured as follows: after a typological overview in 2, different types of clause linkage are contrasted in 3. The subsequent Section 4 then goes into a detailed description of different embedding strategies by means of nominalization and compares them to each other.

2. Typological overview

Baure is an incorporating, agglutinative, and predominantly head-marking language with an elaborate classifier system. The predominant constituent order in a clause is VSO, but this may be changed for focus or emphasis. Pronominal arguments tend to prefer SVO order (also reflecting the order in which cross-referencing clitics are attached to a verb base, cf. Figure 1). There is no core case marking, only location is marked by the suffix *-ye* on nouns.

Baure nouns are distinguished for their possessability: one subclass of nouns is generally possessed, another one unpossessed. The majority of possessed nouns have a related free form, derived with the absolute suffix *-ko*; unpossessed nouns have a derived bound form, marked with the possessive suffix *-no*. The possessor is marked by a possessor proclitic, which is the same morpheme that is used for subject marking on verbs. In order to specify the possessor by the explicit possessor NP, it is simply juxtaposed to the possessed NP, as in example (1):

2. I owe all my insight to the collaboration of the Baure speakers. Fieldwork was financed by Radboud University Nijmegen, with technical support and equipment from the MPI for Psycholinguistics Nijmegen.

	possessed NP		possessor NP	
(1)	*to*	*reshishon*	*to*	*sipor*
	to	*ro=eshishon*	*to*	*sipor*
	ART	3SGM=feather	ART	ostrich

'the (lit. his) feather of the ostrich'

The gender distinction of nouns is restricted, i.e. all inanimate nouns are masculine; humans and sometimes animals are distinguished into masculine and feminine according to their biological gender. Adjectives in Baure are a subclass of nouns. They can be divided into three classes. Class I adjectives are right-bound forms, such as *cho-* 'big', which get an obligatory classifier attached. Class II adjectives are unchangeable forms, generally with an absolute suffix *-ko*, such as *monik*(*o*) 'pretty'. Class III adjectives are derived forms, which always terminate with the participant nominalizer *-no*[3] 'NMLZ', such as *kotiskon* (*kotis-ko-no*) 'green'. The majority of derived adjectives can also incorporate a classifier. The form *kotispin* 'green (long and thin object)', for instance, has incorporated the classifier *-pi* 'long & thin' in the slot of the absolute suffix *-ko*. Adjectives are used attributively as modifiers in an NP and predicatively as non-verbal predicates in the clause.

Baure verbs can be very complex. There are various verbal affixes attached at three different levels, summarized in Figure 1.

The verb root is the most basic lexical element, to which root suffixes can be attached, and these constitute the verb stem. In addition, a classifier can be directly incorporated within this verb stem. Verb stem affixes determine the limits of the verb base. The stem suffixes are generally mutually exclusive. The verb base constitutes the meaning unit of a verb, to which aspectual, directional, and valency-changing affixes are attached. The verb base suffixes are combined in a certain order, and the rightmost element has scope over all elements to its left. Under certain conditions, base suffixes can be reanalyzed as part of the base, which sometimes blurs the picture of the morpheme order (cf. Danielsen 2007: 217–219). Personal clitics are used to refer to the core arguments in a clause. Finally, clausal enclitics are attached at the outermost layer of the predicate.

In addition to the verbal base suffixes, there are a number of preverbal particles for aspect or mood specification. These preverbal particles may co-occur with affixes expressing the same meaning, or they may replace them. These particles can be viewed as adverbial proclitics.

3. This suffix is homophonous with two more morphemes *-no*, e.g. the possessive suffix.

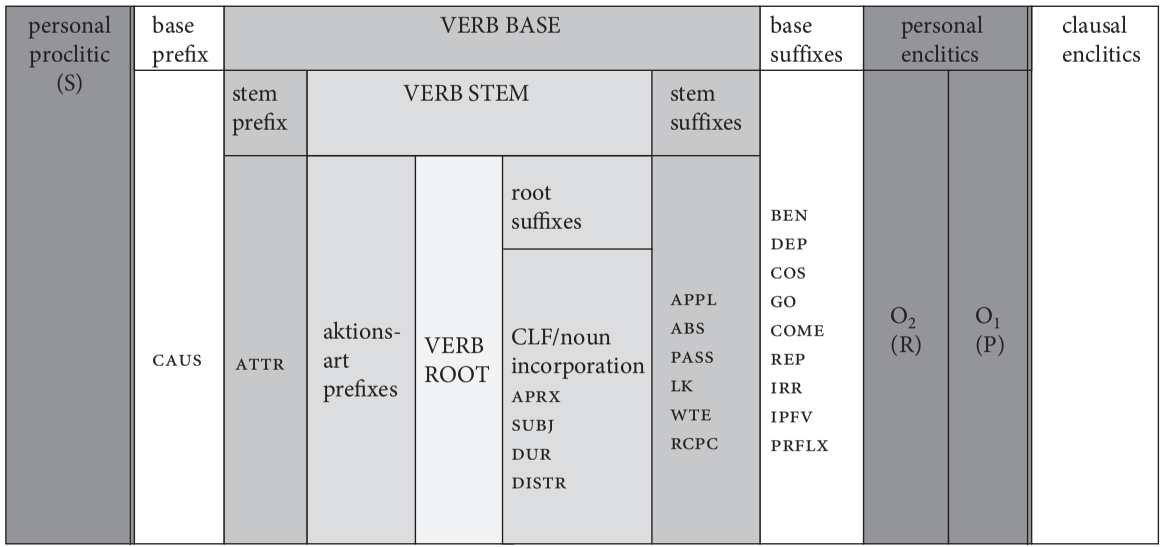

Figure 1. The Baure verb base morphology

There are two main predicate types in Baure: verbal and non-verbal, distinguished by their different kinds of argument marking strategies. Verbal predicates, intransitive and transitive, show obligatory subject marking by a proclitic, as in (2):

(2) *tich marip rinikpa to chindinev.*
tich *marip* *ri=nik-pa* *to* *chindi-nev*
DEM2f[4] witch 3SGf=eat-GO ART person-PL
'This witch went to eat people.'

Objects of transitive or ditransitive verbs can be encoded by an enclitic, when there is no overt object NP. Two object enclitics occur on ditransitive verbs in the order recipient-patient (4), as indicated in Figure 1. Consider the following examples, where (3), with one object enclitic can be compared to (2) without object marking, and (4) to (3) with two object enclitics versus only one:

(3) *roper-ji posoki, ver ronikier.*
ro=pa=ro=ji *po-soki* *ver* *ro=nik=ro*
3SGM=give=3SGM=QUOT other-CLF:seed PERF 3SGM=eat=3SGM
'He gave him another nut, (and) he ate it.'

(4) *pipanir.*
pi=pa=ni=ro
2SG=give=1SG=3SGm
'You give it to me.'[5]

Non-verbal predicates, on the other hand, show a different strategy for subject marking: the subject is marked by an enclitic, but generally only if there is no following overt subject NP (5), as in (6) and (7), thus resembling the object marking strategy for verbal predicates:

(5) *monik ti pijin.*
monik *ti* *pi=jin*
pretty DEM1f 2SG=daughter
'Your daughter is pretty.'

(6) *roshononowori.*
ro=shonono-wo=ri
3SGM=daughter.in.law-IPFV=3SGf
'She is his daughter-in-law.'

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4. Demonstratives can denote three levels, simply named 1, 2, and 3. Generally they are analyzed as proximate, distal and remote in other Arawakan languages, however, they each serve different discourse functions which are not directly related to distance.

5. The verb root *-pa-* 'give' is not related to the homophonous verbal base suffix *-pa* 'GO, intentional, directional'.

(7) *napiri' ver monikowaper.*
napiri' ver moniko-wapa=ro
also PERF pretty-COS=3SGM
'It is also already pretty.'

Equative and attributive predicates can also simply be juxtaposed, as in examples (8) and (9):

(8) *ndi' noromon to eponoenev*
ndi' no=romon to eponoe-nev
1SG 3PL=chief ART leaf-PL
'I am the chief of the leaves.'

(9) *ver chinowapa ti napiri'.*
ver chino-wapa ti napiri'
PERF old-COS DEM1F also
'She (emphatic) has also already become old.'

Baure makes extensive use of non-verbal predicates. All nouns and adjectives can function as predicates in a clause, but adverbs and pronouns as well.

3. Clause combining, subordination, and clause embedding in Baure

Before going into the details of particular embedded constructions, this section discusses the different types of clause linkage we can find in Baure: coordination, unmarked subordination, and two types of marked subordination: adverbial clauses and embedding (relative and complement clauses). The different types of clause linkage are listed in Table 1.

Table 1. Summary of clause combination types in Baure

Symmetry	kind	function	predicate marking
coordination		juxtaposition	unmarked
		introduced by coordinating connector	unmarked
subordination	unmarked subordination	juxtaposition	unmarked
		introduced by subordinating connector	unmarked
	adverbial clauses (marked subordination)	causal clauses	*-pi* 'ABSTR'
		locative clauses	*-yi* 'LOC'
		temporal clauses	*-ro* 'TEMP'
		purpose and other	*-cho* 'PTCP'
	embedding	relative clauses	*-no* 'NMLZ'
		relative clauses	*-ri* 'PNMLZ'
		complement clauses	*-cho* 'PTCP'

It is important to note that the focus of this article is on morphosyntactically marked subordination, in particular embedding. Embedded clauses show a dependent predicate that has a specific morpheme marking the particular type of relation the clause has with respect to the main clause. As will be shown in this section, the other types of subordination do not display any morphosyntactic signs of dependency, and they are therefore similar to main clauses.[6]

As summed up in Table 1, clauses in Baure may be linked through coordination or subordination basically. Coordination may be the simple juxtaposition of clauses, in which case neither the clauses nor the predicates are marked in any way, illustrated in (10):

	C_1	C_2	C_3
(10)	*rejwesaw,*	*rejachow,*	*rokachpow.*[7]
	ro=ejwesa-wo	*ro=ejacho-wo*	*ro=kach-po-wo*
	3SGM=jump.in.water-IPFV	3SGM=wash-IPFV	3SGM=go-PRFLX-IPFV
	'He jumped in the water, washed, (and) went away.'		

In (10) three predicates, which are themselves complete clauses, are combined in an asyndetic coordination. The events are interpreted to have occurred in the chronological order in which they are presented.

Coordinate clauses may also be linked with a connective, such as *ach* 'and' (11), *aw* 'and not', *apo* 'or', *apon* 'or not', and *tiwe'* 'but'. The major constituent order can be symbolized as [C_1] [co C_2], where "co" stands for connector (cf. "coordinator" in Haspelmath 2004: 6), C_1 for main clause and C_2 for linked clause:

	C_1	co	C_2
(11)	*rijirikopa*	*ach*	*riejerik.*
	ri=jiriko-pa	*ach*	*ri=ejerik*
	3SGF=sit-GO	and	3SGF=spin
	'She sat down and spun (made thread).'		

Juxtaposition is not restricted to coordination; in other contexts the juxtaposition of two clauses can evoke a subordinate interpretation. This includes e.g. intentional

6. Matthiessen & Thompson (1988: 317) also argue that "there is no advantage to postulating a grammatical category of 'subordinate' clause; rather the grammar of English at least, and perhaps of other languages as well, suggest that a distinction between what we have been calling 'hypotaxis' and 'embedding' is crucial."

7. Not only simple predicates can be combined, but also complex clauses with core and oblique arguments and adverbials etc. The outcome looks less like predicate combination, since the predicates are not necessarily adjacent to one another.

and purposive readings. In (12) three clauses are combined without further marking, but the C_3 is interpreted as the purpose of the preceding clause (C_2):

	C_1	C_2	C_3
(12)	*pijinoekpa*	*pikomorikpa ka'an*	*nik.*
	pi=jinoek-pa	*pi=komorik-pa ka'an*	*nik*
	2SG=search-GO	2SG=kill-GO animal	1SG.eat
	'You go and search and kill an animal so that I eat.'		

In other predicate chains specific verbal morphemes indicate the relation between the events.[8] In this respect, the irrealis morpheme *-sha* (13) and the departitive *-wana* (14) are particularly important. They can also occur in simple clauses and are not dependent on a following or preceding clause.

	C_1	C_2		
(13)	*piki'inasha*	*nipapi to peroserokoch.*		
	pi=ki'in-a-sha	*ni=pa=pi*	*to*	*pi=eroserokoch*
	2SG=want-LK-IRR	1SG=give=2SG	ART	2SG=lasso
	'If you want, I give you your lasso(s).'			

	C_1	C_2
(14)	*ti rikachpow wapoeri-ye,*	*riviawana tech porespa'.*
	ti ri=kach-po-wo	*wapoeri-ye*
	DEM1f 3SGf=go-PRFLX-IPFV	river-LOC
	ri=via-wana tech	*porespa'*
	3SGf=take-DEP DEM2m	*mate*
	'She went to the river, having taken a *mate* pumpkin.'[9]	

In (13) the two clauses could be juxtaposed in the inverse order, still, the irrealis morpheme *-sha* on the predicate marks the relation: the marked one is the precondition to the second one. The event marked by *-wana* in C_2 in (14), which follows the other clause, precedes the other event temporarily. Departitive is a kind of aspectual marking, meaning to do something before leaving.

Clauses that show a relation indicated by an aspectual or mood suffix may be considered subordinate or dependent (13). However, they are syntactically independent and simply juxtaposed. That this juxtaposition is closer to coordinate clauses is supported by the fact that sometimes a coordinate connector *ach* 'and' can link the clauses marked in this way, as in (15) in contrast to (13):

---

8. This is not the same kind of predicate chaining that has been called "medial construction", as in Papuan and other languages (compare Longacre 1985:272).

9. The "mate" is a kind of pumpkin used as a container for water.

	C_1	co	C_2
(15)	*enevere nga rosowesha*	*ach*	*niyonpa riwer-ye.*
	enevere nga ro=sowe-sha	*ach*	*ni=yon-pa ri=weri-ye.*
	next.day NEG 3SGM=rain-IRR	and	1SG=walk-GO 3SGF=house-LOC
	'If it doesn't rain tomorrow, I will walk to her house.'		

In this article the type of clause linkage presented in (13) through (15) is subsumed under "unmarked subordination", which is supposed to indicate that there is a specific subordinating morpheme in the subordinate clause. The distinction between coordinate and subordinate clauses is therefore not easily made. Generally it is argued that "coordination involves symmetry, while subordination involves asymmetry" (Haspelmath 2004: 37). Since the examples presented are not clearly morphosyntactically dependent, it is possible that the asymmetry is only perceived on a semantic level.[10]

There are a number of "unmarked" subordinate clauses in Baure, which are introduced by a subordinating connector such as *koech* 'because' (16), *koejkoe*' 'so that', *apo* 'if', *(moe)na*' 'unless', and *ishkon* 'until'. In these clauses, the predicate is not marked for dependency, unlike embedded clauses. The major constituent order of unmarked clause combinations is the same as that of linked coordinate clauses: [C_1] [co C_2] – and the subordinate clause in itself has the same constituent order as a main clause. Consider example (16):

	C_1	co	C_2
(16)	*nar'inokow*	*koech*	*nowojik tech ndir eroserokoch.*
	ni=ar'inoko-wo	*koech*	*no=wojik tech ndir eroserokoch*
	1SG=be.sad-IPFV	because	3PL=steal DEM2m 1SGP lasso
	'I am sad, because they stole my lasso.'		

There is no different or reduced marking on predicates in the subordinate clause. The clause connectors can also be attached to simple clauses, where the connector refers to the whole preceding discourse and not only one simple clause, as in (17). Therefore the main indication of the subordination is the semantic analysis.

(17) *koech tich marip rijornoechow ach rikajarokia tech joron.*

koech tich marip ri=jornoecho-wo ach ri=kajarokia tech joron
because DEM2f witch 3SGF=bake-IPFV and 3SGF=light.fire DEM2m stove
'Because (it was the case that) this witch was baking and she lit the fire of the stove.'

10. Compare Haspelmath: semantic coordination and subordination (Haspelmath 2004: 34–37).

The first clause in (17) is not directly connected to any specific preceding clause. The connector *koech* simply connects the clause to the preceding discourse. The clause can be analyzed as a complete main clause, which is then again connected to another clause by the coordinator *ach* 'and'.

Furthermore, there are different types of subordinate clauses, where the subordinate predicate is marked for the relationship of the subordinate clause with the main clause. These types of dependent clauses can be referred to as "adverbial clauses". The marked subordinate clauses include causal marking with *-pi* (18), locative marking with *-yi* (19), temporal marking with *-ro*, and a general adverbial marking with *-cho*. Here follows an example of a causal adverbial clause:

	C_1	C_2
(18)	*ver rokanach ten shiye'*	*tech ropikoropi.*

ver	*ro=kanach*	*ten*	*shiye'*	*tech*	*ro=pikoro-pi*
PERF	3SGM=win	DEM3m	fox	DEM2m	3SGM=smart-ABSTR

'The fox won because of his being smart.'

Example (19) shows how a locative adverbial clause is constructed:

(19) *vejkow to vikopsipoeyow.*

vi=ejko-wo	*to*	*vi=kopsipo-yi-wo*
1PL=wash-IPFV	ART	1PL=step-LOC-IPFV

'We clean where we step (the floor).'

The locative subordinate clause *to vikopsipoeyow* 'where we step' displays locative marking on the predicate, which determines the kind of relation this clause has to the main clause. Locative clauses can stand alone, but are then interpreted as interrogative clauses; e.g. *vikopsipoeyow* of example (19) by itself means 'Where do we step?'.

In causal subordinate clauses (non-embedded) the predicate is nominalized, marked by the abstract nominalizer *-pi* (18). Nominalization is generally the marker of embedded clauses, as shown in 4. However, marked causal clauses are here not considered to be embedded. They seem to be a specific type of clause juxtaposition. In fact, the same kind of juxtaposition of a clause with an NP in order to mark a causal relation can also be found with underived nouns, as *tech roejos* '(because of) his tail' in (20):

	C_1	C_2
(20)	*noka roki'inow tech kotis*	*tech roejos.*

noka	*ro=ki'ino-wo*	*tech*	*kotis*	*tech*	*ro=ijos*
NEG	3SGM=want-IPFV	DEM2m	lizard	DEM2m	3SGM=tail

'The lizard didn't want (to sit down) because of his tail.'

The different embedded clauses in Baure are two kinds of relative clauses, marked by the nominalizers *-no* 'NMLZ' and *-ri* 'PNMLZ', and complement clauses, constructed with the participle or action nominalizer *-cho* 'PTCP'. The predicate in subordination is nominalized and thus transformed into a subject or object argument of the main clause, or a modifier of these arguments. It is here argued that embedded clauses are a particularly marked type of subordinate clause, which is also the only kind of real dependent clauses in Baure.

4. Embedded clauses

In this section the three types of embedded clauses are contrasted and compared for their similarities and differences. Section 4.1 describes the relative clause (RC) constructions with the most common construction marked by *-no* 'NMLZ', followed by the section on another kind of RC marked by *-ri* 'PNMLZ' (4.2). After these two RC constructions 4.3 focuses on complement constructions, in which the participle construction shows striking similarities to the nominalization in the RCs. All three constructions are contrasted directly in 4.4. Section 4.5 gives examples of a more complex embedding situation.

4.1 Relative clauses marked by *-no* 'NMLZ'

The most frequent multifunctional nominalizer is *-no* 'NMLZ'. It is very productive for the derivation of nouns and adjectives. It marks the most widespread kind of relative clause, which is illustrated here.[11]

The element *-no* marks a participant nominalization, which is frequently agentive, i.e. 'one who Vs' (cf. Comrie & Thompson 1985: 351), as *akon* 'singer' < *-ak-* 'sing', *vepian* 'liar' < *-vepia-* 'tell lies', and *showekon* 'the crawling one' < *-showek-* 'crawl' in (21):

(21) *boen, roshim tech showekon.*

boen	*ro=shim*	*tech*	*showeko-no*
well	3SGM=arrive	DEM2M	crawl-NMLZ

'Well, the jaguar (lit. crawling one) arrived.'[12]

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11. Furthermore, these nominal forms are used in imperative, interrogative, and counterfactual conditional clauses. In counterfactual conditional clauses the predicates of both combined clauses are marked by the nominalizer.

12. The lexeme *showekon* 'the crawling one' is frequently used to refer to the jaguar in narratives, even though there is also the word *shini* 'jaguar'.

The nominalizer *-no* derives class III adjectives (see Section 2) from verbs. For example, *yakon* 'ripe/ the ripe one' is derived from the verb *-yak-* 'ripen'; it is used as an attributive adjective in (22), and as a non-verbal predicate in (23):

(22) *ach kwe' ten pon yiyakon.*
ach kwe' ten pon yi~yako-no
and exist DEM3m other INT~ripen-NMLZ
'And there is that other ripe one.'

(23) *yakonowor.*
yako-no-wo=ro
ripen-NMLZ-IPFV=3SGM
'It is ripe.'

In many examples the nominalized form does not refer to the agent but to an entity or notion associated with the event expressed by the root. Examples are *askon* 'help (N)' < *-asok-* 'help (V)', *eron* 'drink (N)' < *-er-* 'drink (V)', *-nikon* 'food' < *-nik-* 'eat', and *esokon* 'perfume' from *-esok-* 'smell nice'.

The major type of relative clause (RC) is headless.[13] A headless RC may represent the subject or object argument in the main clause, which can best be contrasted with predication without embedding. In (24) and (25) different types of subject NPs (NP_S) are contrasted; the one in (25) represents a headless RC. The role in the RC is indicated in parentheses:

predicate NP_S

(24) *nonik to noshechenev.*
no=nik to no=sheche-nev
3PL=eat ART 3PL=child-PL
'Their children ate.'

predicate NP_S (S in RC)

(25) *ronik tech kotorekon.*
ro=nik tech kotoreko-no
3SGM=eat DEM2m work-NMLZ
'This worker (lit. the one who works) ate.'

Example (24) consists of a predicate with subject marking (*no=* '3PL'), followed by the possessed subject NP (NP_S) *to noshechenev* 'their children'. The same

13. Baure RCs are either headless or externally headed. Internally headed RCs (cf. e.g. Van Valin 2005: 260) do not occur in Baure.

structure is exploited in (25), with the difference that the NP_S is a nominalized verb *kotorekon* 'the one who works', which is just the way relative clauses are constructed. They may be much more complex, including core and oblique arguments, adverbs and modifiers, and can represent the subject or object in the main clause.

The most frequent constituent orders are VS and VO, thus the examples of object NPs (NP_O) look very similar. Compare the simple NP_O in (26) to the RC in NP_O position in (27):

	predicate	NP_O	
(26)	*rambik*	*ti reyon.*	
	ro=am-pik	*ti*	*ro=eyon*
	3SGM=take-COME	DEM1f	3SGM=wife
	'He brings his wife.'		

	predicate	NP_O (O in RC)			
(27)	*ver nambik*	*te pamoserinow, nipiri.*			
	ver	*ni=am-pik*	*te*	*pi=amoseri-no-wo*	*ni=piri*
	PERF	1SG=take-COME	DEM1m	2SG=need-NMLZ-IPFV	1SG=sibling
	'I brought you what you need, my sister.'				

If there is a head, the RC can be described as an NP that modifies the head, and the head is almost never the subject. As the RC is generally postnominal (typical of VO languages, see Payne 1997: 326), it has the same position as most of the modifiers of a noun within an NP (adjectives). The clauses in (28) and (29) modify the object NP (NP_O):

	predicate	NP_O	MOD
(28)	*nambik*	*nor*	*chacha.*
	ni=am-pik	*nor*	*ch-a-cha*
	1SG=take-COME	deer	big-CLF:animal-AUG
	'I bring a very big deer.'		

	predicate	NP_O	MOD (RC)
(29)	*nambik*	*nor*	*nikasachon.*
	ni=am-pik	*nor*	*ni=kasacho-no*
	1SG=take-COME	deer	1SG=hunt-NMLZ
	'I bring deer that I hunted.'		

In (28) the object NP *nor* 'deer' is modified by the adjective *chacha* 'very big', whereas in (29) there is the modifying RC *nikasachon* 'that I hunted' in the same position.

There is no relative pronoun, but the majority of RCs are introduced by a determiner (article or demonstrative pronoun), as illustrated in (30), where the RC is antecedent to the matrix clause and starts in *to nen* 'those':

(30) *koech to nen ikomorikonow te jowe' moej nojinokir.*
koech *to* *nen* *ikomoriko-no-wo* *te* *howe'*
because ART DEM3PL kill-NMLZ-IPFV DEM1M dolphin
moej *no=jinok=ro*
CERT 3PL=see=3SGM
'Because those who have killed a dolphin could see it.'

Many RCs and complement clauses are also introduced by the indefinite pronoun *to ka* 'something, someone (complementizer)', as in (31) and (32):

(31) *tek to ka pijikowonasha noiy rinikien.*
tek *to* *ka* *pi=jiko-wo-no-a-sha* *noiy* *ri=nik=no*
all ART IND 2SG=pass-IPFV-NMLZ-LK-IRR there 3SGF=eat=3PL
'All those who would be passing there she eats (them).'

(32) *nga nchow to ka ka'anoeyoworon.*
nga *ni=chow* *to* *ka* *ka'ano-iyo-wo=ro-no*
NEG 1SG=know ART IND animal-kind-IPFV=3SGM-NMLZ
'I don't know what kind of animal it is.'

While *to ka* 'someone' functions as a default head in RCs, as in (31), it is rather a complementizer in complement constructions, as in (32), and it could precede any complement optionally, in particular when the complement is fronted. The complementizer *to ka* occurs most often in negative existentials *nga to ka* 'there is not anyone/anything which …'.

In relative clauses, the predicate nominalized by *-no* 'NMLZ' describes an argument of the main clause, which may either be subject or object in the RC, indicated by the absence or presence of a personal proclitic. In this "gap-strategy" the hearer "infers by subtraction the case-role of the missing argument" (the gap), as defined by Givón (1990: 659). Since there is no case marking in Baure, this has to be applied to the presence/absence of cross-referencing (cf. Section 2). This kind of gap strategy for bound pronouns has already been described briefly for the South-Western Arawakan language Asheninka (Givón 1990: 660 with reference to David Payne). The RC predicate displays subject cross-reference when the relativized argument is not the subject of the RC (cf. examples (29), (33), (34), and (36)) or lacks it when it is the subject of the RC (cf. examples (25), (35), (37), and (38)). If there is object cross-reference on the predicate of the RC, then this replaces the participant nominalization morpheme. The nominal form is thus not expressed in

those cases. The marked object may either be an additional object of the RC or an argument of the main or subordinate clause that is referred (back) to in the form of "pronoun retention" (Payne 1997: 331–32). For each kind of argument marking there are examples in (33) through (38). The semantic role of the head in the RC is indicated in the line above in parentheses. The abbreviation "head=" means that the RC functions as the head itself.

In (33) there is subject and object cross-reference, and the RC functions as the head, which is the object of the main clause. Thus the RC is headless, but it is introduced by the article *to* 'ART'; the nominalizer is dropped because of the object marking by *=ni* '1SG'. It is clear, though, that the RC does not refer to the subject, because in that case subject marking on the predicate in the RC would be missing.

		head=(O)					
(33)	*nam*	*to nopani to nech yoronev.*					
	ni=am	*to*	*no=pa=ni*	*to*	*nech*	*yoro-nev*	
	1SG=take	ART	3PL=give=1SG	ART	DEM2PL	monkey-PL	
	'I take what the monkeys give me.'						

The relativized element in (33) is analyzed as the missing coreferent on the predicate. The full predicate could be *nipanir* (*no=pa=ni=ro*; 3PL=give=1SG=3SGm) 'they gave it to me'. As the indirect object is overtly encoded, the RC refers to the direct object, which is not overtly encoded.

In (34) there is only subject marking, the head is *te na'* 'this egg', and its role in the RC is that of the direct object, which is modified by the RC:

		head	(O)				
(34)	*nik*	*te na'*	*ripan ti nen.*				
	nik	*te*	*na'*	*ri=pa-no*	*ti*	*ni=en*	
	1SG.eat	DEM1m	egg	3SGf=give-NMLZ	DEM1f	1SG=mother	
	'I eat this egg that my mother gives to me.'						

In fact, the ditransitive verb *-pa-* 'give'[14] could display the marking of the indirect object *=ni* '1SG' (as in (33)), but the first person singular object is seemingly inferred from the main clause, where it is the subject.

Examples (35) and (36) are both formed on the basis of the negative existential construction *nga to ka* 'there is not anyone/anything which …', which is always followed by a RC. In (35) there is no subject but object marking, and the relativized element is the subject. In (36), in contrast, there is subject marking

14. cf. Footnote 5

and the relativized element is an object (recall that the nominalizing suffix is dropped when the object is encoded by a clitic):

		head	(S)
(35)	*nga*	*to ka*	*jishimirapi.*
	nga	*to ka*	*jishimira=pi*
	NEG	ART IND	kiss=2SG
	'There is no-one who kisses you.'		

		head	(O)
(36)	*nga*	*to ka*	*pijishimiran.*
	nga	*to ka*	*pi=jishimira-no*
	NEG	ART IND	2SG=kiss-NMLZ
	'There is no-one for you to kiss.'		

The gap strategy mainly accounts for subjects. The presence of object marking on the predicate in the RC does not give any information about whether the object is relativized or not (cf. example (45)). Object marking may be present as a kind of pronoun retention, which is not possible for subject RCs, or it co-occurs with the explicit object NP in the RC, as in (37):

		head	(S)	NP_O	
(37)	*nga*	*to ka*	*iyineri*	*ti nijin.*	
	nga	*to ka*	*iyino=ri*	*ti*	*ni=jin*
	NEG	ART IND	teach=3SGf	DEM1f	1SG=daughter
	'There is no-one who teaches my daughter.'				

There is no argument marking at all on the relativized predicate in (38). The head is the subject of the main clause, and the RC modifies the subject. The object in the RC, *chindinev* 'people', is an explicit NP.

		head	(S)	
(38)	*kwe'*	*tin marip*	*nikon chindinev.*	
	kwe'	*tin marip*	*niko-no*	*chindi-nev*
	exist	DEM3f witch	eat-NMLZ	person-PL
	'There is that witch that eats people.'			

All information questions have in common that the main predicate of the clause appears in a nominalized form marked with *-no*. This is true for questions for the reason, purpose or place of an action, as well as for subject and object questions. Subject and object questions can be considered a subtype of relative clauses. They are introduced by the grammaticalized particle *kon* 'who/what'. This particle evolved from the nominalized form *woyik(w)on*, a reduced form of *ro=woyiko-(wo-)no*

(3SGM=be.Identity-(IPFV-)NMLZ) 'who is it?'. Hence, the interrogative particle is the original matrix verb and it is followed by a RC, which may have an initial determiner or the indefinite head *to ka*. In subject questions only the nominalizer is attached to the embedded predicate with possible object marking in addition, but there is no subject cross-reference (39). In object questions there is subject cross-reference on the predicate, and nominalization of the predicate, but no object marking (40):

head=(S)

(39) *kon* *to ishoerkowon?*
kon *to* *ishoereko-wo-no*
who/what ART cook-IPFV-NMLZ
'Who cooked/is cooking?

head=(O)

(40) *kon* *to rishoerekon?*
kon *to* *ri=ishoereko-no*
who/what ART 3SGF=cook-NMLZ
'What did she cook?'

The pattern of argument marking on the embedded predicates in interrogative clauses with the gap strategy is thus similar to that of indicative RCs, compare e.g. (39) to (35), and (40) to (36).

4.2 Relative clauses marked by *-ri* 'PNMLZ'

The nominalizer *-ri* 'PNMLZ' derives nouns denoting objects, instruments, or products inherently associated with an action.[15] Examples are the noun *-nikori* 'plate' < *-nik-* 'eat', *ejmori* 'laundry' < *-ejmoeko-* 'wash clothes', or (41) with the derived noun *-ejoviri* 'garbage (lit. the thing thrown away)':

(41) *pejevik ten pejoviri.*
pi=ejevi-ko *ten* *pi=ejovi-ri*
2SG=throw.away-ABS DEM3m 2SG=throw.away-PNMLZ
'You threw away the garbage (lit. that which you threw away).'[16]

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15. This process could be referred to as "object nominalization", defined as "designating the result, or the typical or 'cognate', object of an action" (Comrie & Thompson 1985:355). However, this could be confusing with reference to the argument nominalizer, which may also relativize clausal objects.

16. The variation of *e* (*-ejevik-* 'throw away') and *o* (*-ejoviri* 'garbage') is common in Baure, in particular due to the weakness of the vowel *o*.

In at least one example the derived noun also functions as an adjective: *kaviari* 'drunk/drunkard' < *-kavi-* 'be drunk'.[17] In this derivation process from a stative verb the linking suffix *-a* is inserted. Morphologically striking is that when deriving the nominalized form from verbs that include the stem suffix *-ko* 'ABS', this is dropped, unless the verb base would then become monosyllabic, as in *vekori* 'language' < *-vek-* 'speak'. Most derived predicates in RCs have an additional imperfective suffix *-wo* attached, as in (43).

Product nominalization is not as productive as participant nominalization. The RC constructed with *-ri* is generally restricted to very few grammatical objects. The only nouns derived by *-ri* that can be used as subjects in clauses are lexicalized forms, such as *konori* 'typewriter' < *-konok-* 'write' or *kaviari* 'drunk(ard)' in (42):

(42) *roshim tech kaviari.*
ro=shim *tech* *kavi-a-ri*
3SG=arrive DEM2m be.drunk-LK-PNMLZ
'The drunkard arrived.'

The subject *kaviari* 'drunk(ard)' in (42) could also be replaced by the form derived by *-no*, *kavin* 'drunk(ard)'. The difference between the two nominalized forms is unclear in this instance.

In general, there are no RCs derived by *-ri* without subject marking, since they all refer to relativized objects. The different nominalizers *-no* and *-ri* mainly seem to indicate different reference in time or aspect. While predicates marked with *-ri* refer to an action that preceded the event time of the main predicate (as the product of an action), predicates marked with *-no* rather refer to the event time. This can be shown in the following examples. In (43) the predicate *nijinoeriow* 'what I was/had been looking for' has to refer to a time preceding the event time of the main predicate *nitorak* 'I find/found'.

head=(O)

(43) *ver nitorak* *to nijinoeriow.*
ver *ni=torak* *to* *ni=jinoe-ri-wo*
PERF 1SG=find ART 1SG=search-PNMLZ-IPFV
'I already found what I was looking for.'

In example (44) the action of stealing the cheese must also have preceded the time of eating:

17. The suffix *-ri* may also go back to a Proto-Arawakan form: it can be found as an adjectivizer in Iñapari (Parker 1995), also in the form *-łi* in Bare (Aikhenvald 1995:25) and Warekena (Aikhenvald 1998:304–305). There was also a relativizer *-ri* in Maipure (Zamponi 2003:42,55) and Asheninka (Givón 1990:660).

head (O)

(44) *ronikow kes rowojiriapa noiy estansia-ye.*
ro=niko-wo kes ro=woji-ri-a-pa noiy estansia-ye
3SGM=eat-IPFV cheese 3SGM=steal-PNMLZ-LK-GO there farm-LOC
'He was eating cheese, which he had gone to steal there from the farm.'

Note that the linking morpheme *-a* before the active intentional suffix *-pa* in (44) indicates that the verb has been nominalized. Besides various other functions, the linker *-a* is attached to stative verbs and non-verbal predicates before active verbal suffixes. Active verbs, on the other hand, get active and stative suffixes attached without the addition of the linker. The same morpheme *-pa* is therefore attached directly to the verb *-wojik-* 'steal'. The existence of the linker in (44) shows that we are dealing with a nominal base.

Examples (45) and (46) are both from the same narrative about a man whose lassoes were stolen by the foxes, and the donkey goes to get them back. Note that in (45) the participant nominalizer is not expressed because of the object marking.

head (O)

(45) *ndi' nijinoekow tech nerosorekochonev nowojikier.*
ndi' ni=jinoeko-wo tech
1SG 1SG=look.for-IPFV DEM2m
ni=erosorekocho-nev no=wojik=ro
1SG=lasso-PL 3PL=steal-(NMLZ)=3SGM
'I am looking for my lassoes that they have stolen.'

head (O)

(46) *ver nokaspichow to ochipi tech erosorekochonev nowojiriow.*
ver no=kas-pi-cho-wo to
PERF 3PL=finish-CLF:long&thin-APPL-IPFV ART
ochi-pi tech erosorekocho-nev no=woji-ri-wo
eight-CLF:long&thin DEM2m lasso-PL 3PL=steal-PNMLZ-IPFV
'These were all of the eight lassoes that they had stolen (lit. The eight lassoes that they had stolen already finished).'

In both examples, (45) and (46), the head noun is *erosorekochonev* 'lassoes' (possessed in (45)). In (45) the RC refers to something that is still true at the time of speaking, i.e. the lassoes are stolen. The predicate is nominalized with the morpheme *-no*, which is here overridden by the personal enclitic. In (46) the same predicate is nominalized with *-ri*, which has the effect that the RC refers to something that happened before the time of speaking, but does not necessarily hold any longer.

The main focus of the nominalizer *-ri* therefore seems to be the anteriority, also emphasized by the sometimes preceding particle *ver* 'already, PERF', as in (47), taken from a narrative in unpublished SIL data (Baptista & Wallin n.d.).[18] In this example the action of eating preceded the time of being thirsty. The eating was actually mentioned a few clauses before in the narrative.

				head	(O)
(47)	*ver rokamomonikopaw*			*tech sok*	*ver roniri maiy.*
	ver	*ro=ka-momoniko-pa-wo*		*tech*	*sok*
	PERF	3SGM=ATTR-thirst-GO-IPFV		DEM2m	sugar
	ver	*ro=ni-ri*	*maiy*		
	PERF	3SGM=eat-PNMLZ	much		
	'That sugar, of which he had eaten much, already made him thirsty.'				

Even though the RC generally follows the head in the current Baure data, there are also a few examples in which the RC precedes its head within the NP, as does the predicate marked by *-ri* in (48). The nominalized predicate *nijinoriow* 'which I have seen' modifies the object of the main clause *te aren* 'that bird'. The position is not so exceptional, however, since a subclass of modifiers can also precede the head noun (and follow the determiner) in an NP.

(48)	*"verapani", rokichowon, "nimoekpon*				
	(O)		head		
	te nitorombochochow		*te nijinoriow aren."*		
	ver-a-pa=ni	*ro=kicho-wo-n*			
	PERF-LK-GO=1SG	3SGM=say-IPFV-NMLZ			
	ni=imoek-po-no		*te*	*ni=torombocho-cho-wo*	
	1SG=have.made-PRFLX-NMLZ		DEM1m	1SG=trap-PTCP-IPFV	
	te	*ni=jino-ri-wo*	*aren*		
	DEM1m	1SG=see-PNMLZ-IPFV	bird		
	'"I already went (there)", he said, "I had this made so that I can trap this bird which I have seen."'				

Unfortunately there are only few occurrences of *-ri* in the data, and its function can therefore not be described in all its complexity.

18. The focus on anteriority is the analysis chosen here, but more examples may reveal a more specific distinction between the different nominalization strategies. Alternatively focus could be a distinguishing factor.

4.3 Complement clauses marked by *-cho* 'PTCP'

The action nominalizer *-cho* 'PTCP' creates action nouns or participles from verbs, and it is just as frequent as *-no*.[19] There are no lexicalized nouns which have been derived by *-cho*. It is exclusively used for marking embedded complements and adverbial clauses. The nominal status of the complement is indicated by a preceding determiner. Structurally the complement clauses look exactly like the headless RCs described in 4.1. and 4.2. Consider example (49):

	C[C_1		C_2]	
(49)	*kach riki'inasha*		*tech rijiropoch…*	
	kach	*ri=ki'in-a-sha*	*tech*	*ri=jiropo-cho*
	GO	3SGF=want-LK-IRR	DEM2m	3SGF=dance-PTCP
	'When she wants to dance…'			

In (49) there are two clauses (C_1 and C_2), and C_2 is embedded in C_1. The embedded complement clause is reminiscent of the headless RC in (33). It is nominalized by *-cho*, preceded by a determiner *tech* and functions as the object of the matrix verb *-ki'in-* 'want'. The major difference, however, is that RCs refer to a person or thing, whereas complement clauses typically refer to an event (cf. Dixon 2006: 15). Another difference is that complement clauses or adverbial clauses can be, but are in fact less often preceded by a determiner. In (50) the complement clause is nominalized without a determiner:

	C[C_1		C_2]		
(50)	*noka nijinokowovi*		*piwoiykoch shep.*		
	noka	*ni=jinoko-wo=pi*	*pi=woiyko-cho*	*shep*	
	NEG	1SG=see-IPFV=2SG	2SG=make-PTCP	*chivé*	
	'I haven't seen you making *chivé*.'[20]				

19. There is also unmarked complementation, which is the unmarked juxtaposition of two verbs, of which the first functions as the matrix verb. Unmarked complementation is restricted to a small class of matrix verbs (cf. Danielsen 2007: 421). Example:

	matrix V	complement		
porok	*ripoekir*	*rosiap te riwer.*		
porok	*ri=poek=ro*	*ro=siap*	*te*	*ri=wer*
never	3SGF=let=3SGM	3SGM=enter	DEM1m	3SGF=house
'She never let him enter her house.'				

20. "Chivé" is the word for toasted manioc flour in lowland Bolivia.

The action nominal is generally marked with only a subject proclitic, but there are also examples with both subject and object marking. There are no examples with only object marking or no argument marking at all. In (49) and (50) there is only subject marking on the verb complement, but in (51) there is both. The object reference on the predicate of C_1 in (51) presumably refers to the following complement in C_2 itself.

	$C[C_1$	$C_2]$		
(51)	*pivetkowor*	*piwoiykoch te wotoki.*		
	pi=ivetko-wo=ro	*pi=woiyko-cho*	*te*	*wotoki*
	2SG=be.able-IPFV=3SGM	2SG=make-NMLZ	DEM1M	hammock
	'You can make a hammock.'			

In (52) and (53) there is subject and object marking on the verb complement; note that *-cho*, unlike *-no*, is never deleted when an object enclitic is attached. In (53) *to ka* functions as a complementizer.

	$C[C_1$	$C_2]$
(52)	*roki'inow*	*rokopsopchor.*
	ro=ki'ino-wo	*ro=kopsop-cho=ro*
	3SGM=want-IPFV	3SGM=step-PTCP=3SGM
	'He wanted to step on him.'	

	C	$C[C_1$	$C_2]$
(53)	*rokichopia tech showekon eto rokamiyonowor to ka ronikochor.*		
	ro=kicho-pi-a	*tech*	*showekon* *eto*
	3SGM=say-CLF:words-LK	DEM2M	jaguar finish
	ro=kamiyono-wo=ro[21]	*to* *ka*	*ro=niko-cho=ro*
	3SGM=need-IPFV=3SGM	ART IND	3SGM=eat-PTCP=3SGM
	'He talked so that the jaguar would stop wanting (feel the need) to eat him.'		

The complement clause is frequently subordinate to a non-verbal predicate, as in (54).

21. The composition of the predicate *rokamiyonowor* 'he didn't feel the need to' is partly unclear, but the morpheme *-no* is presumably not related to any embedding strategy; the example is again taken from unpublished SIL data (Baptista & Wallin, n.d.).

C[C_1 C_2] C[C_3 C_4]

(54) *soperapichon tech rovekoch, ach wepian tech rovekoch.*

soperapichon *tech* *ro=veko-cho* *ach* *wepian*
rubbish DEM2m 3SGM=speak-PTCP and liar/lie

tech *ro=veko-cho*
DEM2m 3SGM=speak-PTCP

'It is rubbish what he speaks, and it is lies what he speaks.'

If C_4 in (54) were nominalized by *-no* in the form *tech rovekon* 'what he is speaking', it would be a RC with *wepian* 'liar/lie' as its head. In this case the focus would rather be on the topic he is talking about. If the RC lacked subject marking *tech vekon* 'the one who speaks', it would refer to the speaker himself '(he is) a liar, the one who is speaking. However, the marking by *-cho* indicates that the focus is on the action itself. The English translation rather looks like a RC than a complement.

Adverbial clauses can be formed in the same way as complement clauses, and both clause types cannot be distinguished structurally. Compare the adverbial clauses in (55) and (56) to the complement clauses in (49) through (54):

C_1 C_2

(55) *royapa tech riavinon tech raro'inokochow.*

ro=ya-pa *tech* *ri=avinon*
3SGM=cry-GO DEM2m 3SGF=husband

tech *ro=aro'inoko-cho-wo*
DEM2m 3SGM=be.sad-NMLZ-IPFV

'Her husband went to cry because of his being sad.'

C_1 C_2

(56) *noka pikotirow tiemp to pikotorekoch.*

noka *pi=kotiro-wo* *tiemp* *to* *pi=kotoreko-cho*
NEG 2SG=have-IPFV time ART 2SG=work-PTCP
'You don't have time to work (for your working).'

Adverbial clauses are a semantic extension of complement clauses it seems. The object position may have been extended to an oblique object (similar to clauses nominalized by *-pi* 'ABSTR' (cf. 3). In contrast to complements, which usually follow the matrix predicate directly, they can be moved around almost freely in

the clause. They frequently precede the main clause, as in (57), but only if the adverbial clause is particularly emphasized and focussed.

[C_2 C_1]C

(57) *tech rishimchow noiy rikichowori: …*

tech	*ri=shim-cho-wo*	*noiy*	*ri=kicho-wo=ri*
DEM2m	3SGF=arrive-PTCP-IPFV	there	3SGF=tell-IPFV=3SGF

'Arriving there she said to her:…'

4.4 Comparison of embedding strategies

In this section the different types of embedding strategies are compared. Even though all three markers, *-no*, *-ri*, and *-cho*, derive nominal forms that may function as the object in the main clause, there are decisive semantic differences. This shall be demonstrated with examples which the author constructed on the basis of similar examples.[22] In each of the examples in (58) through (60) the main clause contains the verb *-ajko-* 'try', and the marked embedded clause functions as the direct object argument in the main clause.

(58) *najkopa te nishoerekon.*

ni=ajko-pa	*te*	*ni=ishoere-ko-no*
1SG=try-GO	DEM1m	1SG=cook-ABS-NMLZ

'I will try what I am cooking.'

(59) *najkopa te nishoereriow.*

ni=ajko-pa	*te*	*ni=ishoere-ri-wo*
1SG=try-GO	DEM1m	1SG=cook-PNMLZ-IPFV

'I will try what I have cooked!'

(60) *najkopa te nishoerekoch.*

ni=ajko-pa	*te*	*ni=ishoere-ko-cho*
1SG=try-GO	DEM1m	1SG=cook-ABS-PTCP

'I will try to cook (lit. try my cooking).'

The embedded clauses in (58) and (59) are both relative clauses. (58) refers to the object that is being produced 'what I am cooking'; the speaker is still cooking and

22. These specific examples were not double-checked with the speakers, but the general strategy was taken from similar examples.

wants to try if it is already done or not. In (59) the food has already been cooked at the moment of speaking. The complement clause in (60) also functions as an object, but this is not the product of the action of cooking (food), but it is the event of cooking itself (participle).

Since complement clauses constitute the direct object of a verb, these embedded clauses are always "headless", i.e. they do not have a nominal head. The two RC types can be headless and constitute the object NP, or they may modify an argument, namely a nominal head; the participle construction is excluded from this possibility. In (61) through (63) this distinction is exemplified:

	head	RC(O)
(61)	*tech erosorekoch*	*nowojikon.*
	tech *erosorekoch*	*no=wojiko-no*
	DEM2m lasso	3PL=steal-NMLZ
	'the lasso that they stole'	

	head	RC(O)
(62)	*tech erosorekoch*	*nowojiriow*
	tech *erosorekoch*	*no=woji-ri-wo*
	DEM2m lasso	3PL=steal-PNMLZ-IPFV
	'the lasso that they had stolen'	

	head	O (complement)
(63)	**tech erosorekoch*	*nowojikoch*
	tech *eroserokoch*	*no=wojiko-cho*
	DEM2m lasso	3PL=steal-PTCP

Example (63) is ungrammatical.[23] The marked clause would have to be interpreted as an adverbial clause with some e.g. purposive relation to the NP 'the lasso for stealing'.

While all three embedded clause types were shown with object reference, there is apparently only one type of embedded clause that can also refer to the

23. Theoretically it could only work with a head noun like 'the fact' in a so-called fact-S construction ('the fact is that…'; cf. Comrie 1998:65), but in general such abstract nouns do not exist in the Baure data. It is possible, though, with epistemic words, such as *soperapichon* 'rubbish', as in (54).

subject: the RC marked by *-no*. The examples to illustrate this are all negative existential clauses with the expression *nga to ka* 'there is no-one (who)':

		head	(S)
(64)	*nga*	*to ka*	*woyikon to wotoki.*
	nga	*to*	*ka*	*woyiko-no*	*to*	*wotoki*
	NEG	ART	IND	make-NMLZ	ART	hammock
	'There is nobody who is making a hammock.'					

	head	(S)
(65)	**nga to ka*	*woyiri to wotoki*
	nga	*to*	*ka*	*woyi-ri*	*to*	*wotoki*
	NEG	ART	IND	make-PNMLZ	ART	hammock

	head	(S)
(66)	**nga to ka*	*woyikoch to wotoki*
	nga	*to*	*ka*	*woyiko-cho*	*to*	*wotoki*
	NEG	ART	IND	make-PTCP	ART	hammock

Example (66) could be acceptable with subject marking on the complement, and the clause would then be translated as 'it is not the case that S is making a hammock'.

Complement clauses may also be translated as relative clauses into English, which shows how closely related the three embedding strategies actually are. This has already been mentioned for example (54), and it also holds for (67), which is translated into what looks like a headless RC rather than a complement.

(67) *riwoyikow tech ngotorekoch ndi'.*

ri=woyiko-wo	*tech*	*ni=kotoreko-cho*	*ndi'*
3SGf=make-IPFV	DEM2m	1SG=work-PTCP	1SG

'She is doing what I do (lit. my working).'

One more characteristic of the participant nominalization *-no*, which has not been described yet, is the fact that it can also be used for complementation, a construction generally marked by *-cho* (see above). In (68) the verb has a marked complement, but marked by *-no* and not *-cho*; the expression *to ka* functions as a complementizer:

	matrix V	complement
(68)	*nga nopoekowor*	*to ka vekon.*
	nga	*no=poeko-wo=ro*	*to*	*ka*	*veko-no*
	NEG	3PL=let-IPFV=3SGm	ART	IND	speak-NMLZ
	'They didn't let them speak (lit. someone to speak).'				

Example (68) demonstrates that even those morphologically marked subordinate clauses which were described as being used mainly for relativization in 4.1, may be interpreted as complement clauses.

The comparison of the different embedding strategies is summed up in Table 2:

Table 2. Comparison of the three embedding strategies

marking type	clause type	modify head	subject reference	object reference	role of object
-no 'NMLZ'	RC; complement clause	+	+	+	person/thing; event
-ri 'PNMLZ'	RC	+	–	+	person/thing
-cho 'PTCP'	complement clause	–	–	+	event

4.5 Complex embedding

The embedding strategies described above allow for complex (i.e. recursive) embedding. The following two examples demonstrate this:

C[C_1 C[C_2 C_3]]

(69) *nga to ka nikon to nishoereriow.*

nga to ka niko-no to ni=ishoere-ri-wo
NEG ART IND eat-NMLZ ART 1SG=cook-PNMLZ-IPFV
'There is no-one who eats what I have cooked.'

C[C_1 C[C_2 C_3]]

(70) *koech nga pitiriow tech piwoyikoch tech ngotorekoch.*

koech nga pi=tiri-wo tech pi=wokiko-cho
because NEG 2SG=know-IPFV DEM2m 2SG=make-PTCP

tech ni=kotoreko-cho
DEM2m 1SG=work-PTCP

'Because you don't know how to make what I am making (lit. my working).'

In both examples there is double embedding with different derivation strategies. In (69) the predicate *nikon* 'who eats' refers to the subject of the main clause, and within the RC there is another RC referring to the object of the higher RC (food). Example (70) is a case of double complementation, in which case the first complement is the direct complement of the verb *-tiri-* 'know', and the other complement is like the RC-like construction described above (67).

What we do not find in Baure is a modifying RC of an active subject of a transitive verb. Note that all subjects being modified in the examples are stative subjects in the main clause, as e.g. (38). An example like English 'the jaguar who ate the fox killed another animal' would not be expressed as one clause but necessarily two. Further data may reveal that in particular non-restrictive relative clauses are not constructed with the described embedding strategies. Restrictive relative clauses may focus the subject, and a focussed subject could be relativized in a cleft construction in Baure, the description of which extends beyond the limits of this paper.

5. Conclusion

As described above, embedded clauses are formed by means of predicate nominalization in Baure. This is a widespread phenomenon cross-linguistically. The process of nominalization can be observed in other Arawakan languages, and many languages of the world use participles or nominalization to mark relative clauses (Payne 1997: 327). The postnominal position of relative clauses is also the most common type (Payne 1997: 326).

To sum up the findings, it can be argued that relative clauses in Baure do not have the same function as in European languages. The majority of relative clauses are headless, which means that the relativized predicate functions as the argument itself. An argument is prototypically nominal, therefore the predicate which functions as a head is nominalized. The headless construction seems to be the basic construction. A modifying relative clause modifies an argument of the main clause, its head. Even though there are some examples of object RCs with a head, these could always do without a head; 'I try the food that you are cooking' is much less frequent than 'I try what you are cooking' (headless). Furthermore, there are almost no examples of relative clauses with a head that has the subject role in the main clause, similar to English 'the man whom I saw is coming'. The only instances are subjects in existential constructions with *kwe*' 'there is', negative existential constructions *nga to ka* 'there is no-one who', or the focussed cleft construction. Relativized subjects are generally stative, but there is no example of a subject head modified by a following relative clause and then takes over the active role as the agent of a verb in the main clause. Such an embedding of clauses would probably rather be avoided in Baure.

It was also shown that all object relative clauses are constructed like complement clauses. It was illustrated that the distinction between both clause types is difficult to make in Baure. Thus a relative clause construction in Baure may have a translation that is not considered to be a relative clause in English, or a complement clause may be translated as a relative clause into English, cf. Comrie (1998: 76) on Japanese.

Abbreviations

-	affixation
~	reduplication
=	cliticization
1SGP	possessive pronoun (of first person singular)
ABS	absolute morpheme
ABSTR	abstract nominalization
APPL	applicative
APRX	approximative
ART	article
ATTR	attributive
AUG	augmentative
be.I	be (identity)
BEN	benefactive
C	clause
CAUS	causative
CLF	classifier
COME	directional: towards
COS	change of state
DEM	demonstrative (three types:1, 2, 3)
DEP	departitive
DISTR	distributive
DUR	durative
f	feminine
GO	go (to do sth.), intentional, directional
IND	indefinite pronoun
INT	intensifying
IPFV	imperfective state (also past of achievement verbs); copula
IRR	irrealis
LK	linker
LOC	locative
m	masculine
NEG	negative
NMLZ	(participant) nominalizer
NP	noun phrase
NP_O	object NP
NP_S	subject NP
O	object
P	patient
PASS	passive
PERF	perfective, 'already'
PL	plural
PNMLZ	product nominalizer
PRFLX	perfective & reflexive
PTCP	participle
QUOT	quotative
R	recipient
RC	relative clause
RCPC	reciprocal
REP	repetitive
S	subject
SG	singular
SUBJ	subjective
V	verb
VP	verb phrase
WTE	weather/ time/ environment morpheme

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Subordinate clauses, switch-reference, and tail-head linkage in Cavineña narratives*

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Tail-head linkage is a discourse pattern which consists in repeating, at the beginning of a new sentence, the main verb of the preceding sentence for discourse cohesion. This pattern, which is rarely discussed in general typological work, is widespread in certain areas of the globe, in particular Papua New Guinea. In this paper, I report a case of tail-head linkage in Cavineña, an Amazonian language spoken in the northern lowlands of Bolivia, in which it is manifested by way of three subordinate clause types: two temporal adverbial clauses and a relative clause used adverbially. I also show how the switch-reference system that is associated with certain of these clauses participates in the tail-head linkage system for participant coherence between sentences.

1. Introduction

In this paper I describe the discourse use of three types of subordinate clauses in Cavineña, a language spoken by about 1200 speakers in the Amazonian lowlands

*The research presented in this paper is based, for the most part, on first hand data that I collected myself from Cavineña native speakers in traditional communities through about 15 months of fieldwork between 1996 and 2003. The Cavineña people are warmly thanked for their generous hospitality during my stays among them and for their active cooperation while documenting and analyzing their language. About 60 texts and conversations were recorded from a total of about 20 male and female adults ranging from about 20 to 80 years old. The recordings consist in personal life recounts, old time stories, myths, descriptions of local fauna, traditional customs and practices, etc. With the help of informants, the recordings were transcribed and translated (they amount to about 5000 sentences). Another 20 texts were written by Cavineña consultants (about 700 sentences). The corpus was complemented by utterances volunteered or elicited during controlled sessions as well as utterances overheard during participant observation (about 3600 sentences). In addition, I have made use of Cavineña texts collected and published by SIL missionaries Camp and Liccardi (Camp 1982; Camp & Liccardi 1972; Liccardi 1983; and Tavo Mayo 1977) (about 3500 sentences) and the sentences that illustrate the entries of their (1989) dictionary (about 3000 sentences). The quality of this paper was enhanced thanks to comments by Renée Lambert-Bretière, Françoise Rose and an anonymous reviewer, in addition to comments by Katharina Haude and Rik van Gijn, who acted as editors of the present volume.

of northern Bolivia. In narratives, these clauses – two temporal adverbial clauses and a relative clause used adverbially – are often placed sentence initially and repeat the main verb/predicate of the preceding sentence, as in the text excerpt in (1); the repeated predicate is in boldface.

(1) a. *Amena tume* ***jara-bute-kware*** *ike.*
BM then lie-GO_DOWN-REM.PAST 1SG
'Then I lay down (on my raft).' (mj060)

b. ***Jara-bute-tsu*** *betsa-kware.*
lie-GO_DOWN-SS swim-REM.PAST
'Having lain down (on my raft), I swam.' (mj061)

It is a well-known fact that cross-linguistically a major function of adverbial subordinate clauses is discourse cohesion, in particular when placed at the beginning of a sentence. In that position, they can be used as bridges, linking successive sentences or paragraphs by making reference to some information given in the preceding context (Givón 2001:347; Thompson, Longacre & Hwang 2007:270, 295–297). What is interesting in Cavineña is the fact that very frequently, sentence-initial adverbial (or adverbially-used relative) clauses of the types mentioned above provide the exact replica of the predicate, sometimes even accompanied by its arguments (and/or some other material), a phenomenon that would appear extremely repetitive and stylistically very awkward in many of the languages we are more familiar with.

The verbatim repetition of the verb/predicate of a clause at the beginning of the following sentence has been identified in various languages and language families around the world, to my knowledge all of them located outside Europe. It appears that the first to have written on this pattern are missionary linguists of the Summer Institute of Linguistics working on languages of the Philippines, Papua New Guinea and South America in the 1960s and 1970s (Longacre 1968; Grimes 1972; Thurman 1975, among others). They termed it 'tail-head linkage' – alternative names are 'head-tail linkage', 'recapitulative linkage', 'tail-head recapitulation' or just 'linkage'. To date, the phenomenon of tail-head linkage (henceforth THL) has been best studied in the languages of Papua New Guinea (see for example the synthetic and typological work by de Vries 2005 and many references therein). But THL constructions are also attested in languages and language families from other parts of the world, in particular:[1]

1. I have not conducted any systematic survey of THL in the languages of the world. The following list is only intended to show that THL is a fairly widespread phenomenon cross-linguistically, although poorly discussed in the general linguistic literature.

- Austronesian languages of the Philippines, sometimes under the same name or under the term 'lexical overlap', depending on whether the construction links paragraphs or sentences, respectively (Thompson, Longacre & Hwang 2007: 273–275);
- Australian languages, under the terms 'backgrounding repetition' (McKay 2008 for Rembarrnga) or 'linked repetition' (Evans 2003 for Bininj Gun-wok, cited by McKay 2008);
- Afroasiatic languages, as in Arabic (Aziz 1988, cited by McKay 2008) and Bedja (Vanhove 2005);
- North-American languages, as in the Pomoan family (Oswald 1976: 300);
- South American languages, as in Capanahua from the Panoan family (Loos 1963, cited by Thurman 1975), Kayapó from the Jê family (Stout & Thomson 1971, cited by Thurman 1975), Tariana from the Arawak family (Aikhenvald 2002: 169–171, 2003: 576–581), and Wanano from the Tucanoan family (Waltz & Waltz 1997, cited by Aikhenvald 2002: 169–171).

In all these languages, THL is described as a way to connect sentences or clause chains in which the last clause of a paragraph or a chain, i.e. the 'tail clause', is partially or completely repeated in the first clause of the next sentence or chain, i.e. the 'head clause'. This general definition allows for some degree of variation in the formal realization of THL in most of the languages. The most central characteristic of THL is the repetition of at least the verb/predicate of the tail clause.[2] Nominals (nouns or pronouns) representing the verb/predicate arguments or obliques can be reiterated; occasionally the nominals inserted do not appear in the tail clause. It is also possible that more than one clause be repeated. And sometimes, it is not the last clause that is repeated but another clause of the preceding sentence. In many languages, instead of verbatim repetition of the tail clause verb/predicate, THL can be realized through the use of a generic verb 'do' or 'be' and a demonstrative ('having done that/so'), pointing back to the event expressed by the tail clause – this is often called 'generic verb linkage' (de Vries 2005: 376–377) or 'summary-head linkage' (Thompson, Longacre & Hwang 2007: 274).

2. Note that the term 'tail-head linkage' is sometimes applied to sentence or paragraph-linking devices that do not involve the repetition of verbal material, as with the paragraph-initial anaphoric/linking "connector pronoun" of the Amazonian language Bora, recently discussed by Seifart (2010). It is a matter of debate whether such cases should be included or not as instances of THL. In the present paper, I take the position that they should not.

THL is mostly used in narratives and procedural texts[3] and one of its primary functions is maintaining coherence – participant coherence and event coherence[4] – between subsequent sentences in discourse.[5] There appear to be different kinds of THL constructions. One of the parameters of variation is the degree of thematic continuity that is found between the sentences that are linked by THL. A majority of (if not all) the languages that manifest THL use this device in contexts of high thematic continuity, that is within individual paragraphs. Some languages have in addition a formally distinct type of THL construction that occurs at major thematic breaks, used between distinct paragraphs. See Grimes (1972: 521) and de Vries (2005: 377) for examples of languages that display the two types. The former type of THL, which will interest us more in this paper, appears to be used to highlight events that are part of the semantic main event line (MEL).[6] In the Papuan language Siroi, for example, "THL occurs most frequently in the time-chain of the narrative where it signals the most important events. In fact, by just glancing over the recapitulated clauses of a story you can usually get an accurate impression of the story-line" (van Kleef 1988: 153). In at least some languages, THL also marks completion of the actions involved. In the Papuan language Manambu, "the linkage itself is a way of signaling the fact that one action has finished so that the other one can begin" (Aikhenvald 2008: 545). The way THL operates is via an effect of backgrounding/foregrounding. In the Australian language Rembarrnga, "the repeated verb backgrounds the preceding action (already given) as a transition to what is now being introduced, which is foregrounded as the next step in the narrative. […] It has the effect of putting one event behind and moving on to the next event" (McKay 2008: 10).

Different languages employ THL to different degrees. At one extreme there are languages in which THL is pervasive. In Siroi, for example, "all the main events

3. THL is also attested in other genres in some languages, such as in conversations in some Papuan languages (de Vries 2005: 365).

4. In Givón's (2001: 328–329) terms, coherence is "the continuity or recurrence of some element(s) across a contiguous span of multi-propositional discourse." Participant and event coherence are part of a wider "tapestry of thematic coherence" that also includes location, temporality, aspectuality, modality, and perspective ('narrative voice').

5. Another typical function of THL, at least in Papuan languages, is processing ease. This function is not relevent for Cavineña, as discussed in §5.

6. I am using the concept of MEL in the sense of Payne (1992: 379). Drawing on earlier work by Labov & Waletzky (1967) and Hopper (1979), she defines a clause as belonging to the MEL as having the following properties: "(1) it must report an event as actually occurring. The 'event' cannot be a hypothetical one […] and (2) the actual reporting of the event must advance the action of the narrative along a chronological line".

of the story are focused on by means of recapitulation. This is done very consistently by most narrators throughout the whole narrative […]. When THL is not used in the time-chain of the story, something other than the next main event is in focus. This is usually either an event that stands outside the time-chain [as in the setting or summary of the story], or it may be a case of variation of the time-chain [as when introducting new participants or when there is a lapse of time or time stand-still between the events]" (van Kleef 1988: 152–153). At the other extreme, there are languages where THL is used more sparingly, such as Manambu (Aikhenvald 2008: 545).

THL appears particularly prevalent in certain types of languages. Various authors note the correlation between THL and certain typological characteristics of the languages that have it, in particular that of being polysynthetic and/or favoring null arguments (zero anaphora). De Vries (2005: 367) notes that in spontaneous speech, and in particular when expressing sequences of events, speakers of Papuan languages use nominals (nouns or anaphoric pronouns) very infrequently. When they do so, they normally express no more than one nominal per clause, and tend to reserve that one nominal for encoding new information. As a result, these languages do not use nominals to track given, active referents across sentence boundaries; rather this function is taken over by verbs in THL (see also McKay 2008: 10). In her discussion of the Afroasiatic language Bedja, Vanhove (2005) suggests that the phenomenon of repetition could compensate for the lack of 3rd person anaphoric pronouns in the language.

Another interesting observation made by certain authors is the correlation between THL and the presence of a switch-reference system, as found in many Papuan and Amerindian languages. In his discussion of the North-American Pomoan languages, Oswald (1976: 300) suggests that verb repetition is used as a way to "continue the discourse [between independent sentences – AG] within the framework of switch-reference" when the switch-reference system is otherwise only available within the domain of the sentence in these languages. In Stirling's (1993: 17, 220–221) terms, "the recapitulation clause allows the switch-reference marking to be carried over from one sentence to the next".

In this paper, I will describe and discuss in detail what I will call THL in Cavineña. I will show that three types of subordinate clauses – two adverbial temporal clause types and one adverbially-used relative clause type – in sentence-initial position in this language display many (if not most) of the characteristics found in THL constructions in the languages mentioned above.

The paper is organized as follows. Section 2 provides a brief morphosyntactic background to Cavineña clause structure and a general introduction to the main types of subordinate clauses. Section 3 discusses in detail the three types of subordinate clauses that are used in THL: same-subject temporal clause, different-subject

temporal clause and relative clause. Section 4 addresses the issue of what is exactly repeated from the tail clause and how it is repeated. Section 5 shows that the function of processing ease, typical of Papuan languages, is less relevant in Cavineña THL. The paper ends with a conclusion that summarizes the main features of THL in Cavineña.

2. Cavineña: Some morphosyntactic background

2.1 Main clauses

Cavineña (verbal) main clauses are headed by a verb that must be inflected by a TAM affix. The arguments are normally expressed either by nominals (NPs or independent pronouns), or by second position pronominal clitics,[7] or by both at the same time. This latter situation is illustrated by the pair of examples below: in (2) the O argument 'chicken' is expressed both by the noun *takure* and the pronominal clitic *=tu*; in (3) the S argument 'jaguar' is expressed both by the noun *iba* and the pronominal clitic *=tu*. The arguments are not cross-referenced on the verb/predicate.

(2) Transitive clause

Iba=ra	***=tu***[8]	*iye-chine*	***takure***.
jaguar=ERG	=3SG.ABS	kill-REC.PAST	chicken.ABS

'The jaguar killed the chicken.' (elicited)

(3) Intransitive clause

[*Tuke*	*tupuju*][9]	***=tu***	***iba***	*tsajaja-chine*.
3SG	following	=3SG.ABS	jaguar.ABS	run-REC.PAST

'The jaguar ran behind him.' (Camp & Liccardi 1972: 33)

As illustrated by the above examples, the morphological encoding of the grammatical functions for both nominals and pronominal clitics patterns according to an ergative/absolutive alignment. The argument in A function is marked by the enclitic *=ra*, as in (2), while the arguments in O or S function are left unmarked, as in (2) and (3). In natural discourse, arguments are rarely expressed by overt nominals, unless they refer to newly-introduced referents or in ambiguous contexts;

7. Bound pronouns share the second position with other clitic morphemes coding notions of evidentiality, epistemic modality, discourse status, speaker attitude, etc.

8. Enclitics preceded by a space are second position clitics.

9. Square brackets are used for multiple-word constituents.

this can be observed in the illustrative text in the appendix to this article. When nominals are used, their ordering is determined by pragmatic factors.

The morphological structure of a verb/predicate, even though it does not include person markers, can be characterized as polysynthetic, due to the fact that (body part) nouns can be incorporated and that a high number of affixes (mostly suffixes) can be used simultaneously to form a verbal word, covering a wide range of functions, such as valency-changing, aspect, associated motion, manner, time of the day, etc.

A number of verbs (e.g. *mere* 'work', *kwatsabiji* 'tell a story to') cannot carry any affix and require a generic auxiliary (light-verb) for this purpose. The auxiliary *ju-* 'be' is used when the construction is intransitive, as in (4), while *a-* 'affect' is used when it is transitive, as in (5).

(4) *Junio=ju e-diji=ju* ***mere*** ***ju****-kware*.
June=LOC NPF-path=LOC work be-REM.PAST
'In June I was working on the road.'
(example volunteered during elicitation session)

(5) *Era =mi* ***kwatsabiji*** ***a****-ya, Antuku…*
1SG.ERG =2SG tell_story_to affect-IMPFV Antuku
'I will tell you a story, Antuku…' (av001)[10]

2.2 Subordinate clauses

Subordinate clauses of all types differ from main clauses in that their verb carries a marker of dependency, and in that they cannot stand on their own; they form a constituent of a superordinate clause in which they are embedded. According to morphological criteria, Cavineña has two categories of subordinate clauses: (i) non-finite subordinate clauses, whose verb form is stripped from its TAM inflectional affixes, as with the general purpose clause marked by *=ishu* in (6), and (ii) finite subordinate clauses, whose verb form must be marked by certain TAM inflectional affixes, as with the reason clause marked by *=tibu* in (7).

(6) [*Ekwe mama-chi*] *=bakwe deka=bucha mere*
1SG.GEN mother-AFFTN =CONTR man=SIMLR work
ju-kware [***ekwana*** ***jutu=ishu***].
be-REM.PAST 1PL dress=PURP.GNL
'My mother worked like a man so that she could dress us.' (nk026)

10. Examples followed by a code (2 letters followed by a three-digit number) come from my own corpus of texts. The code corresponds to the place of the sentence in the database.

(7) [***Tura=kamadya ijeti jipe-kware=tibu***] *=pa =tu pude-da.*
3SG.ERG=ONLY sun approach-REM.PAST=REASON =REP =3SG red-ASF
'They say that, because he (the sun bird) was the only one who approached the sun, he is red.' (hi009)

The full list of Cavineña subordinate clause types is given in Table 1. (The clauses marked by -(*a*)*tsu*, *=ju* and *=ke* will be discussed in detail in the remainder of the paper.)

Table 1. Types of subordinate clauses in Cavineña

non-finite		finite	
main function	**marker**	**main function**	**marker**
temporal settings	-(*a*)*tsu*	temporal settings	*=ju*
purpose of motion	*=ra*	reason	*=tibu*
general purpose	*=ishu*	similarity	*=bucha*
cause	*=ra*	conditional	*=ke juatsu*
immediate anteriority	*=wie*	'thanks to'	*=ademe*
		concessive	*majaka/=amabucha*
		relativization	*=ke*

Formally speaking Cavineña does not have complement subordinate clauses nor coordinate clauses per se, although some of the surbordinate clause types of Table 1 are occasionally better translated by complement or coordinate clauses in Spanish or English.

Finite and non-finite subordinate clauses share the additional following properties:

1. The verb of a subordinate clause must come last in the clause; overtly expressed arguments are free to occur in any order before the verb;
2. Subordinate clauses do not contain second position clitics (pronominal clitics and clitics that encode evidentiality, epistemic modality, etc.);
3. The coding of grammatical functions within subordinate clauses follows, like in main clauses, an ergative pattern. With most types of subordinate clauses, we find the exact same case-marking system: ergative case marker *=ra* on A NPs (suffix *-ra* on independent pronouns) and absence of case marking on S and O NPs.

Having introduced the general characteristics of subordinate clauses, we will now focus on two types of adverbial clauses, the non-finite temporal same-subject clause marked by -(*a*)*tsu* and the finite temporal different-subject clause marked by *=ju*, and on the adverbial use of relative clauses, marked by *=ke*.

3. Temporal subordinate clauses

3.1 Non-finite temporal same-subject clause[11]

The first type of subordinate clause that will be discussed has its verb marked by the suffix -(*a*)*tsu*.[12] The semantic relations with the verb of the matrix clause are mainly temporal. Very frequently the events described in the matrix and the subordinate clause occur in a sequence, as in (8). But they can also occur simultaneously, as in (9) and (10). Subordinate clauses marked by -(*a*)*tsu* can also be used in generic statements (to specify the circumstances under which a statement holds true), as in (11), or to modify the matrix clause as a manner adverb would, as in (12) and T15.[13]

(8) sequence

Tudya *=tuke* *=Ø* ***imeta-tsu*** *mare-kware.*
then =3SG =1SG point_at-SS shoot_at-REM.PAST
'Then I pointed (my rifle) at it (a peccary) and I shot at it.' (ch007)

(9) simultaneity

Iba *=tu* [***terati=ju*** ***ju-ani-tsu***]
jaguar =3SG beam=LOC be-SIT-SS

[*e-tse* *jibu-jibu*] *ju-ani-kware.*
NPF-tooth roll_up-REDUP be-SIT-REM.PAST

'The jaguar was sitting on the beam and snarling (rolling his teeth up and down).' (ht026)

(10) simultaneity

Baji-u-si=kwita *=tuna* *ju-wa* [***iba*** ***ba-atsu***].
scared-ASF-AUGM=RESTR =3PL be-PERF jaguar see-SS
'They were very scared when they saw the jaguar.' (Camp & Liccardi 1989: 9)

(11) generic statement

[***Misi-da*** ***tawi-tsu***] *=yatse* *tawi* *ju-ya.*
thick-ASF sleep-SS =1DL dream be-IMPFV
'When we sleep deeply (lit. when we sleep thick) we dream.'
(Camp & Liccardi 1989: 81)

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11. For a more comprehensive discussion of non-finite temporal same-subject clauses, see Guillaume (2008: Ch. 18).

12. The short form *-tsu* is used with polysyllabic verbal stems while the long form *-atsu* is used with monosyllabic stems.

13. T15 refers to the example T15 in the text in the appendix.

(12) adverbial modification

Pa-bute *ike.* *Ike* ***aje-tsu*** *pa-diru.*
HORT.SG-go_down 1SG 1SG walk-SS HORT.SG-go
'I will go down (from the cart). I will go walking.' (ka456)

Subordinate clauses marked by -(*a*)*tsu* have strict co-reference constraints vis-à-vis their matrix clause: their subject is obligatorily co-referential with the subject of the matrix clause. All combinations of subject co-reference are attested (see Guillaume (2008, 2010) for more details). One corollary to the same-subject co-reference requirement is that the subject of a clause marked by -(*a*)*tsu* is normally omitted. On the other hand, any other clausal constituents, including arguments and obliques, can be expressed and if so, they receive the same marking as they would in a main clause.

Subordinate clauses marked by -(*a*)*tsu* (henceforth SS-temporal clauses) are by far the most frequently used type of adverbial subordinate clause (including non-finite and finite adverbial clauses) in Cavineña discourse.[14]

As can be seen in examples (8) to (12) and T15, SS-temporal clauses can occur at different places vis-à-vis the matrix verb (before or after) and vis-à-vis other clausal constituents within the sentence. It is not clear whether specific positions trigger specific semantic readings; this issue needs more work. In any case, in narratives, there is a very strong correlation between sentence-initial position and THL as introduced in §1.[15] In this position, very frequently (although not obligatorily), SS-temporal clauses repeat the main verb/predicate of the (near) immediately preceding sentence, sometimes accompanied by its arguments (and other material), as in sentences c., e. and f. of the following text excerpt. The repeated material is in boldface.

(13) a. *Ani-kware* *=tu* [*peadya* *ekwita* *Alberto* *bakani*].
sit-REM.PAST =3SG one man Alberto name
'There was a man named Alberto.' (hp001)

b. *Tu* ***kwa-kware*** [*mara* *akwi* *sare=ra*].
3SG go-REM.PAST mara_tree tree look_for=PURP.MOT
'He went (in the jungle) looking for mara wood (for selling).' (hp002)

c. ***Kwa-atsu*** *=tu* *kuji* *ju-ti-kware* *ekwita.*
go-SS =3SG get_lost be-GO-REM.PAST man
'While going, the man got lost.' (hp003)

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14. In an illustrative text provided in Guillaume (2008:773–798), for example, subordinate clauses marked by -(*a*)*tsu* are found in 17% of the sentences (26 occurrences out of 153 sentences). And in the text provided in the appendix to this paper, subordinate clauses marked by -(*a*)*tsu* are found in 23% of the sentences (12 occurrences out of 51 sentences).

15. In this paper, I will only discuss THL in narratives, although it is also used in other genres such as procedural texts and conversations.

d. [*Kimisha wekaka meta beta jadya tawi-wa=ke*] *=tu*
three day night two and sleep-PERF=LIG =3SG
e-bakwa=ke=ra [*datse iwa-tsu*] ***sare-ti-kware.***
3-child=3=ERG FRUST wait_for-SS look_for-GO-REM.PAST
'(The man) having gotten lost (lit. slept) three days and two nights, his child, waiting in vain for him, went looking for him.' (hp004)

e. ***Sare-ti-tsu*** *=tu e-tata=ke chamakama* ***dadi-kware.***
look_for-GO-SS =3SG 3-father=3 finally find-REM.PAST
'Going looking for him, he finally found his father.' (hp005)

f. ***Dadi-tsu*** *=tu e-bakwa=ke=ra beti-kware.*
find-SS =3SG 3-child=3=ERG bring-REM.PAST
'Finding him, the child brought him back (home).' (hp006a)

Other instances of THL involving SS-temporal clauses can be seen in seven clauses of the text in the appendix: T4, T7, T11, T25, T26, T34 and T47. See also (1).

Note that the correlation between THL and sentence-initial position is not perfect. That is, sentence-initial position does not obligatorily imply a THL construction, as in (11), for example, which is a generic statement, therefore not part of a narrative story-line. Conversely, although this is rather rare, a SS-temporal clause in a different position might also be involved in a THL construction, as in T7, for example.

The discourse effect of this THL construction in Cavineña is very similar to that noted for other languages above (§1), namely one of foregrounding the most important events of the semantic main event line. If we consider Payne's (1992) criteria (cf. Footnote 6), we can observe that the clauses involved in THL express events are actually occurring, not hypothetical (Payne's property 1) and that they express events that advance the action of the narrative along a chronological line (Payne's property 2). Thus, in the short text in (13), we can see that THL links and highlights the clauses that express the important milestones/steps of the story, "the man went" and "the man got lost" in c., "his son went looking for him" and "his son found him" in e., and "his son found him" and "his son brought him back (home)" in f. In fact, in each of these pairs, it seems that the event expressed by the second clause cannot occur if the event of the first clause has not occurred. It also gives the feeling that when THL is used, that is when a sentence begins with a subordinate clause that repeats the main verb of the previous sentence, one expects the verb of the second sentence to express a new significant event, with important bearings for the remainder of the story, and one is invited to pay more attention.

A noteworthy aspect of SS THL constructions is that they have the effect of carrying the same-subject constraint of SS-temporal clauses across sentence

boundaries. This is a logical consequence of the fact that the subordinate clause verb is the same as the main verb of the preceding sentence and that it must have the same subject as the main verb of the sentence it belongs to. Certain authors such as Oswalt (1976) have suggested that this phenomenon, which helps tracking participant reference between different sentences, could be a possible motivation for a language to develop a THL system (see §1). As we will see in the next section, Cavineña allows for a second type of subordinate clauses to enter THL constructions, different-subject temporal clauses, which function in complementary distribution with SS-temporal clauses for linking two sentences whose main verbs have a different subject.

3.2 Finite temporal different-subject clause[16]

The second type of subordinate clause to be discussed has its verb marked by the clitic *=ju*. Similarly to SS-temporal clauses, this type of clause is extremely frequent in natural discourse.[17] In addition, their main function is also very similar, namely to encode temporal settings for the event expressed by the matrix clause. There are however two main formal differences between the two types of clauses. First, subordinate clauses marked by *=ju* imply a subject switch: the referent of the subordinate clause subject cannot be co-referential with the subject of the matrix clause (see Guillaume (2008, 2010) for more details). Second, subordinate clauses marked by *=ju* have overt marking for their relative temporal relation to the matrix clause. Being of the finite type, the verb of a clause marked by *=ju* must bear inflectional affixes. Specifically, this type of clause usually contains the aspectual inflectional markers *-wa* 'PERF' or *-ya* 'IMPFV', the first one implying sequence, the second simultaneity. These properties are illustrated in the following examples.

(14) sequence

A-kware=dya	*=tuna*	*tee.*	***Rarara-wa=ju***	*=tuna*	*tucha-kware.*
affect-REM.PAST=FOC	=3PL	garden	dry-PERF=DS	=3PL	burn-REM.PAST

'They cleared a garden. When it (the garden) had dried, they burned it.'

(fd015-016)

16. For a more comprehensive discussion of finite temporal different-subject clauses, see Guillaume (2008: Ch. 19).

17. For example, in the text provided in the appendix, this type of clause is found in 17% of the sentences (9 occurrences out of 51 sentences).

(15) simultaneity

Chamakama ***apupu-ya=ju*** *ju-diru-kware.*
finally darken-IMPFV=DS be-GO-REM.PAST
'Finally, when it was getting dark, I arrived.' (sd067)

Subordinate clauses marked by *=ju* can also be used in generic statements:

(16) generic statement

[***Dii=ra*** ***karu-ya=ju***] *pude-na-ya.*
mosquito=ERG bite-IMPFV=DS red-VBLZ-IMPFV
'When a mosquito bites me, I become red.' (tb141)

Similarly to SS-temporal clauses, subordinate clauses marked by *=ju* (henceforth DS-temporal clauses) do not have a strict position in the sentence. They occur very frequently before the matrix verb, as in the preceding examples, but they can also be found after the matrix verb:

(17) *Tatse =bakwe jekutana=dya*
3DL =CONTR be_scarded=FOC

[***ekwanara*** ***jadya*** ***kwatsabi*** ***a-ya=ju***].
1PL.ERG thus tell_story_to affect-IMPFV=DS

'They were scared when we told them the story.' (ri034b)

The functional similarity between the two types of temporal subordinate clauses, those marked by -(*a*)*tsu* and those marked by *=ju*, and the fact that they mainly differ in their specification for having a same or different subject from their matrix clause makes the pair look very similar to a switch-reference system. This impression is reinforced by the fact that DS-temporal clauses can also be used in THL constructions in narratives, in complementary distribution with SS-temporal clauses, when there is a subject switch between two sentences, as in the following text excerpt – the full text is provided in Guillaume (2008: 796–798).

(18) a. *Tura*[18] *=pa =tu amena* ***tirya-kware*** [***tuja*** ***e-rami***].
3SG.ERG =REP =3SG BM finish-REM.PAST 3SG.GEN NPF-flesh
'They (the giant mosquitoes) ate all (lit. finished) her flesh.' (mm011)

18. Occasionally 3rd person singular pronouns can refer to plural referents; see Guillaume (2008: 604–605) for a discussion.

b. [***E-rami*** ***tirya-wa=ju***] *=pa* *=tu* ***maju-kware.***
NPF-flesh finish-PERF=DS =REP =3SG die-REM.PAST
'After they finished her flesh, she died.' (mm012)

c. ***Maju-wa=ju*** *wekaka-tsu* *y-awi=ke=ra*
die-PERF=DS be_at_dawn-SS 3-husband=3=ERG
ba-wekaka-kware *e-biti=kamadya* *ju-jara-ya=ju.*
see-AT_DAWN-REM.PAST NPF-skin=RESTR be-LIE-IMPFV=DS
'After she (the woman) had died, her husband woke up (lit. was at dawn) and all he could see (of his wife) was her skin lying (on the ground).' (mm013)

Additional examples of DS-temporal clauses involved in THL can be found in clauses T17, T36 and T43 of the text in the appendix.[19]

In THL constructions, DS-temporal clauses tend to occur sentence initially. Note that the correlation is again not perfect. In particular, not all sentence-initial DS-temporal clauses are involved in THL, as in (14) or T37, for example, where we can see that the DS-temporal clauses does not repeat the predicate or anything from the preceding sentence, or in (16), which is a generic statement.

As a logical consequence of the different-subject constraint that characterizes DS-temporal clauses, and of the fact that they repeat the main verb of the preceding sentence, the main verbs of two subsequent sentences linked by a THL construction that involve this type of clause must have different subjects. In other words, the different-subject constraint is carried across sentence boundaries. As such, there is a complementary distribution between SS-temporal and DS-temporal clauses in THL. The complementary use of the two clause types is even more evident considering that DS THL constructions also have a very similar discourse effect, namely that of keeping track of the semantic main event line. In all the examples cited, the clauses involved in THL express events that are actually occurring, not hypothetical (Payne's property 1) and express events that advance the action of the narrative along a chronological line (Payne's property 2). This can be verified by looking at the SS THL and DS THL constructions in the text in the appendix. SS THL in T4 highlights the transition between the two main line events "the man went" and "the man met a caiman", in T11 the transition between "the man went (again)" and "the man killed all that he wanted to kill". Then DS THL in T17 draws attention to the move from "the man was standing very worried" to a new important event

19. The text in the appendix includes five additional instances of subordinate clauses marked by *=ju* involved in THL constructions, T32, T35, T40, T42 and T45. These are used for recapitulating direct speech quotations. Their formal realization is slightly different from the THL constructions discussed so far. They are dealt with in §4.

involving a different subject, "a big caiman appeared". In T25, we have another instance of SS THL, linking "the caiman put the man up (on his back)" and "the caiman carried the man to the middle of the lake" and in T26 the link between "the caiman carried the man to the middle of the lake" and "the caiman conducted him according to his own will". In T36 DS THL highlights the transition between "the man became very worried" and "a dog arrived", and in T43 between "the caiman was moving closer" and "the dog talked to him again". Finally, in T47, a last SS THL construction links the last two main events of the story, "the man jumped" and "the man went away".

THL constructions in Cavineña operate within stretches of text of relatively high thematic continuity, in terms of participants – even though there can be a topic/subject switch –, location, temporality and events (see Footnote 4 for a definition of thematic coherence). In other words, THL in Cavineña is probably a device that operates within the paragraph rather than between different paragraphs.

In the next section, we will discuss one last type of subordinate clause that is found in THL constructions, relative clauses.

3.3 Adverbially-used relative clauses[20]

The third type of clause to be discussed is of the finite type – its verb must bear inflectional affixes – and is marked by the clitic *=ke*. This clause type is typically used to modify the head of an NP, as a relative clause (RC), whether restrictive, as in (19), T1 and T11, or non-restrictive, as in (20).

(19) [*Ai bakani*] *=tu ju-kware*
INT name =3SG be-REM.PAST

[*pushi ekwita* [[***makei iye=ra***] ***kwa-kware=ke***]]?
four person enemy kill=PURP.MOT go-REM.PAST=LIG

'What are the names of the four men who went to kill the enemies?'
(Tavo Mayo 1977:73)

(20) *Tume =tukwe ani-kware* [*bina* [***ike susu-ti-ya=ke***]].
then =COUNT.EVID sit-REM.PAST bat 1SG suck-GO-IMPFV=LIG
'There was a (vampire) bat that was going to suck me (during my sleep).' (bi016)

20. For a more comprehensive discussion of relative clauses, see Guillaume (2008: §13.6 and Ch. 19).

Further characteristics of Cavineña RCs used as NP modifiers – not discussed here – are (i) that they do not require an overt NP head, (ii) that their position vis-à-vis the head (if overtly expressed) is flexible (postposed or preposed), and (iii) that they can be internally headed.

RCs can also function as temporal adverbial clauses, in which case they provide temporal settings for the whole matrix clause, rather than specifications of a particular NP head, as in (21), which is hardly translatable by a relative clause in English (or Spanish for that matter).

(21) [***Juye*** ***kanajara-sha-ya=ke***] *=yatse* *tawi-ya*.
ox rest-CAUS-IMPFV=LIG =1DL sleep-IMPFV
'While we (dl) are letting the oxen rest, we (dl) will sleep
(lit. we, who are letting the oxen rest, will sleep).' (ka116)

When used as temporal adverbial clauses, RCs make use of the same two aspectual inflectional markers *-wa* 'PERF' and *-ya* 'IMPFV' for encoding sequence versus simultaneity, respectively, between the RC and the matrix clause, in a way very similar to that of these suffixes in DS-temporal clauses (§3.2). This can be seen by comparing (21), with a simultaneous relation, with (22), with a sequential relation (see also (13d) above).

(22) [***Rekwana=keja*** ***ju-neni-wa=ke***] *=taa*
this_stuff_here=LOC.GNL be-RANDOM-PERF=LIG =EMPH
[*ekwe* *mamita*] *maju-wa*.
1SG.GEN mommy die-PERF
'After having been around these places my mother died
(lit. my mother, who had been around this stuff here, died).' (ka051)

Strictly speaking, RCs used adverbially do not display any obvious differences from those used as regular RCs. They are still regularly case-marked if the common argument is in A function,[21] as in (23), or in an oblique function.

(23) *Iwa* *=tuna* *bidubidu* *a-ya* [***ebarukwe*** ***neti-ya=ra***].
tail =3PL wag affect-IMPFV top stand-IMPFV=ERG
'They (my dogs) were wagging their tails, as they were standing up
(lit. they, who were standing up, were wagging their tails).' (wa095)

21. Note that the ligature marker *=ke* is regularly deleted if it is followed by a case marker, explaining why it does not appear in this example.

The position of RCs used adverbially vis-à-vis the matrix clause is again not rigid. Their preferred position is before the matrix clause verb, as in (21) and (22), but they are also found after, as in (24). Moreover, when placed before the verb, they need not occur sentence initially, as seen in (25) and T12.

(24) *Tsajaja-ni-kware* *=shana* *e-tata=ke*
run-RANDOM-REM.PAST =PITY 3-father=3
[***e-bakwa=ke*** ***dadi-ya=ke=ama***].
3-child=3 find-IMPFV=LIG=NEG
'The poor father searched for his child everywhere (lit. ran in many different places), unable to find him (lit. the father, who could not find his child, ran).' (Tavo Mayo 1977:12)

(25) *Tume* *=pa* *=tu* ***tawi-ya=ke***
then =REP =3SG sleep-IMPFV=LIG
jucha *a-ta-karama* *ju-kware*.
have_sex_with affect-PASS-DESID.NEG be-REM.PAST
'When they (the woman and her husband) were sleeping (in the mosquito net), she refused to have sex.' (mm002)

RCs used adverbially in sentence-initial position are the third type of subordinate clauses that can be used in THL constructions in narratives, as in the following text excerpts.

(26) a. *Tume* ***nubi-eti-nuka-wa***.
then enter-COME-REITR-PERF
'I came back inside (the house).' (ij007)

b. ***Nubi-eti-ya=ra*** *=tuke* *=Ø* *baka-nuka-wa* *waka=bucha*.
enter-COME-IMPFV=ERG =3SG =1SG hear-REITR-PERF COW=SIMLR
'As I was coming back inside (lit. I, who was coming back), I heard something again that seemed like a cow.' (ij008)

(27) a. ***Jara-diru*** *=pa* *ekatse*.
lie-GO =REP 3DL
'They (dl) lay down.' (hm048)

b. 'At that time there was no mosquito net nor anything to sleep conveniently.' (hm049)

c. 'I don't know how they would sleep.' (hm050)

d. *Tume* ***jara-ya=ke=dya*** *=pa* *=tu* *amena* ***tawi-wa***.
then lie-IMPFV=LIG=FOC =REP =3SG BM sleep-PERF
'So as they were lying down (lit. they, who were lying down), they slept.' (hm051)

e. ***Tawi-ya=ke=dya*** *=pa =tu mari-tere-kware.*
sleep-IMPFV=LIG=FOC =REP =3SG roar-COMP-REM.PAST
'While they were sleeping (lit. they, who slept), they moaned.' (hm052)

(28) a. *Tume* [*eweebari weni-da=ekatse=ra*] ***ara-ya.***
then teenager vigorous-ASF=DL=ERG eat-IMPFV
'These two vigorous teenagers were eating it (a raw wild turkey).' (hm091)

b. *Tume* ***ara-ya=ra*** *=pa =tuja =tu*
then eat-IMPFV=ERG =REP =3SG.DAT =3SG

ba-kware sawa-da.
see-REM.PAST green/blue-ASF

'As they were eating it (lit. they, who were eating it), they found out that it was raw (lit. they saw it green/blue).' (hm092)

See also an instance in T29.

The correlation between sentence-initial adverbial RCs and THL, although very high, is again not perfect. In (29b), for example, we can see that the sentence-initial adverbial RC does not repeat the predicate of the preceding sentence (29a).

(29) a. *Ju-eti-chine=dya ekwana.*
be-COME-REC.PAST=FOC 1PL
'We arrived (by plane, in Tumichucua's airstrip).'
(Camp 1982: 121, sentence no. 98)

b. [***Tume avion=ju=ke kwinana-ya=ke***] *=tu* [*señora Ana=ra*]
there plane=LOC=LIG emerge-IMPVF=LIG =3SG lady Ana=ERG

[*señorita Milli*] *iyuka=tsewe a-chine iyuka=ju.*
lady Mili head=ASSOC affect-REC.PAST head=LOC

'When she got out of the plane, Mrs Ana bumped Mrs Milli, with her head.'
(Camp 1982: 121, sentence no. 99)

A similar example can be observed with the sentence-initial adverbial RC in (13d).

The discourse function of RC THL constructions does not appear to be any different from that of the SS THL and DS THL constructions discussed earlier: they are used to keep track of the semantic main event line. They involve events that are actually occurring, not hypothetical (Payne's property 1) and that advance the action of the narrative along a chronological line (Payne's property 2). The RC THL of T29 in the appendix text, for example, highlights the move from the two significant events, 'an ox went to drink' and 'the caiman talk to him (the ox)'.

In terms of reference tracking, RC THL constructions function on a rather different basis than SS and DS THL constructions, since the subject of the clause recapitulated in the RC clause can be either co-referential or non co-referential with the subject of the matrix clause. For example, the subjects are co-referential in (26b), where RC S = Matrix A, (27d) and (27e), where RC S = Matrix S, and (28b), where RC A = Matrix A. And the subjects are non co-referential in T29, where RC S = Matrix O ≠ A. It is not clear why the speaker chose RC THL constructions in these examples, rather than SS or DS THL constructions. This issue needs more work.[22]

4. Variation on a theme: Formal variants of THL in Cavineña

A characteristic of THL constructions that is mentioned in most studies of this phenomenon in languages around the world is that they allow for some variation in what is exactly repeated from the tail clause and how it is repeated (§1). In this section, we will look at this aspect in Cavineña THL.

Cavineña THL always involves the repetition of at least a verbal root. In some cases, there is repetition of some (non-inflectional) affixes, as with the directional/motion suffixes *-bute* 'GO_DOWN' in (1b), *-ti* 'GO' in (13e) and *-eti* 'COME' in (26b).

The recapitulative clause can repeat one or more arguments, as in (30b), with the repetition of the 3rd person plural pronoun in A function *tunara* '3PL.ERG' and the locative phrase *e-tare=ju* 'NPF-house=LOC', and in (31), with the repetition of the S argument *salón* 'rifle'.

(30) a. *Tudya amena* ***=tunara*** *=Ø* ***e-tare=ju*** ***duju-kware.***
then BM =3PL.ERG =1SG NPF-house=LOC transport-REM.PAST
'Then they took me home.' (mg029)

b. [***Tunara*** ***e-tare=ju*** ***duju-wa=ju***]
3PL.ERG NPF-house=LOC transport-PERF=DS
ike amena ka-ba-ti-diru-kware…
1SG BM REF-see-REF-GO-REM.PAST
'After they had taken me home, I recovered consciousness (lit. I saw myself).' (mg030)

22. In fact, the problem is not specific to THL constructions but to all adverbially-used RCs, whether in THL constructions or not. For instance, in the non-THL examples of adverbially-used RCs cited above, (21) to (25), it is not clear why SS clauses are not used instead.

(31) a. *Tume =tu **salón pututa-wa=ama**.*
then =3SG rifle burst-PERF=NEG
'But the rifle didn't work (lit. burst).' (ij018)

b. [***Salón pututa-ya=ama=ju***] *=tu kwa-nuka-wa* [*peya e-tare=ju*].
rifle burst-IMPFV=NEG=DS =3SG go-REITR-PERF other NPF-house=LOC
'As the rifle was not working, he (Lucio) went to another house
(to ask for another rifle).' (ij019)

The arguments can be repeated identically as they appear in the tail clause, as in the examples above, or they can be referred to by an anaphoric word, such as a demonstrative, as in (34c) further below. Certain particles can be repeated, as with the negative enclitic *=ama* in (31). There are cases of repetition of a full complex sentence containing a main clause and a subordinate purpose of motion clause, as in T4. There are also cases of repetition of a copula clause (i.e. of the copula verb and its copula complement), as in T36.

A variant of THL involves the anaphoric manner demonstrative *jadya* 'thus, so'. This phenomenon is reminiscent of what is called "generic verb linkage" in Papuan languages (§1), although it is used in a slightly different way in Cavineña. The most frequent use of *jadya* in THL is in constructions that refer back to quotation of direct speech, thoughts or expression of feeling. As such, the particle *jadya* refers to the quoted material while the act of quoting is referred to by either *ju-* 'be', or *a-* 'affect', depending on whether the act of quoting is intransitive (not involving a clearly identified addressee), as in (32), or transitive (involving a clearly identified addressee), as in (33).

(32) a. "*Pa-diru ike*!"
HORT.SG-go 1SG
'"I'm going!" (I said to myself).' (Liccardi 1983: 56, sentence no. 41)

b. [***Jadya ju-atsu***] *diru-chine tsajaja=kama.*
thus be-SS go-REC.PAST run=ONLY
'After I said so, I went back running all the way.'
(Liccardi 1983: 56, sentence no. 42)

(33) a. "*Re-wa ani-kwe*!"
here-LOC sit-IMP
"Sit (down) here!" (my mother told my older sister) (Tavo Mayo 1977: 28)

b. [***Jadya a-atsu***] *=tura =ekwe e-nasi shana-kware.*
thus affect-SS =3SG.ERG =1SG.DAT 1-older_sister leave-REM.PAST
'After telling her so, she left my older sister.' (Tavo Mayo 1977: 28)

Note that there is nothing fundamentally specific to this construction. The verbs *ju-* and *a-* can be used to mean 'say' (intransitive) and 'tell' (transitive) – see an example with *a-* in T32. And *jadya* can be used in non-THL constructions to mean 'thus'. And in discourse, the function is that of highlighting and maintaining coherence between subsequent direct speech (or thought/feeling) quotation events with different speakers – as in T32 between "the caiman said so" and "the ox answered" and in T40 between "the caiman said so" and "the dog told him" – or between a direct speech (or thought/feeling) quotation event and another event – as in T17 between "he was thinking so" and "a big caiman appeared", in T23 between "the caiman said so" and "the caiman made the man sit on top of him", in T35 between "the caiman told the man so" and "the man became very worried", in T42 between "the dog was saying so" and "the caiman moved closer", and in T45 between "the dog told the caiman so" and "the caiman kept going closer".

Unlike many other languages that manifest THL, Cavineña appears to restrict the use of 'thus' + 'be/affect' constructions for the recapitulation of quotation events, not for the recapitulation of other kinds of events. In the latter case at least the full form of the verb/predicate is normally repeated. Only a few exceptions could be found in the corpus, as in T28, where *jadya ju-ya=ju* 'as he was doing so' does not refer to an act of quotation but to the preceding event 'he did not carry him properly'.

There is finally one last variant of THL that, for exhaustiveness, and because it is very frequently used in text, should be mentioned, although it will not be discussed in detail here. In this variant, the recapitulative subordinate clause includes, in the following order, the verb/predicate of the preceding sentence in a non-finite form, the particle *jadya* 'thus' and an auxiliary (light verb) for carrying the subordinating marker (whether -(*a*)*tsu*, *=ju* or *=ke*). An example of an intransitive construction is given in (34b); note that this text excerpt also includes a regular THL construction in c. (i.e. without *jadya* and an auxiliary). An example of a transitive construction can be found in T26 of the appendix text.

(34) a. *Ji-da=dya* *=di* ***ka-reke-ti-kware.***
good-ASF=FOC =STRG.EMPH REF-CROSS-REF-REM.PAST
'I crossed well.' (mj089)

b. [***Ka-reke-ti*** ***jadya*** ***ju-atsu***] ***tapeke=piji*** ***ara-kware.***
REF-CROSS-REF thus be-SS trip_food=DIM eat-REM.PAST
'After crossing, I ate the food.' (mj090)

c. [***Tumeke*** ***ara-tsu***] *era* *ijeti* *peta-ya.*
that eat-SS 1SG.ERG sun look_at-IMPFV
'After eating that (food), I looked at the sun (to know what time it was).' (mj091)

Functionally, I have not been able to detect any clear differences between THL construction with *jadya* + auxiliary and THL constructions without *jadya* + auxiliary. In examples like (34), *jadya* seems to refer back to the manner in which the action is carried out, namely 'well' in this example, but there are other cases in which the verb action does not appear to be carried out according to any particular manner, as in T26, for example. This issue is tied to the more general issue of complex predicate constructions in Cavineña, in which a lexical verb is used in a frame involving one of the two (intransitive and transitive) auxiliaries. The functional/semantic effects of these complex predicates, which are also found in main clauses, are not fully understood yet. For more discussion, see Guillaume (2008: Ch. 10, in particular §10.5).

5. Cavineña THL and processing ease

THL constructions in Papuan languages often display specific intonation contours associated with head clauses, such as a markedly slowed down pronunciation, a final rise towards the end of the head clause, and the insertion of pause markers or discourse conjunctions with pause contours right after the head clause. These particular intonational contours are said to play a role in the area of processing ease in languages that often have very long narrative sentences (or clause chains) and require a "break" between these long sentences (or clause chains), for the listener to process the information just heard, and for the speaker to formulate his next chain (de Vries 2005: 363–364, 378).[23]

THL constructions in Cavineña, whether realized by same-subject clauses (§3.1), different-subject clauses (§3.2), or relative clauses (§3.3), do not manifest any particular intonational properties. Although I have not conducted any detailed study on Cavineña prosody, as far as I can say, these three types of clauses have the same intonation characteristics whether or not there are used in THL constructions.[24] In any case, they do not display any of the intonational characteristics of Papuan head clauses mentioned above (slower speech, rising contour or pause insertion).

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23. I thank an anonymous reviewer for pointing out this aspect of THL in Papuan languages to me.

24. For general information on accent and intonation in Cavineña, see Guillaume (2008: Ch. 2, §§2.7–2.8).

The absence of any particular intonational contour in Cavineña THL construction is congruent with the fact that this language is neither a clause-chaining language, nor a language in which sentences are particularly long. The need for processing ease is therefore not as relevant in this language as it can be in Papuan languages.

6. Conclusions

THL in Cavineña is instantiated by three subordinate clause types: SS-temporal clauses, DS-temporal clauses, and adverbially-used RCs. When these clauses are used in THL constructions, they are normally placed in sentence-initial position. THL is widely attested in narratives and more specifically at particular points in narratives where the story line is moving ahead. Its main function has to do with maintaining participant and event coherence between subsequent sentences in discourse. By repeating, at the beginning of a new sentence, the main verb of the preceding sentence, THL constructions act as inter-sentential bridges. They have the effect of backgrounding an important event, expressed in the preceding sentence, and of foregrounding a new important event, expressed in the following sentence. By repeating the same verb, THL allows the hearer to keep track in a very precise way of the semantic main event line (the backbone of the narrative), in terms of participants and events. Of note is the phenomenon by which THL carries the switch-reference tracking of participants across sentence boundaries.

Cavineña THL constructions presents most of the formal and functional characteristics generally found in Papuan and other THL languages. Moreover, if we look at the general typological characteristics of Cavineña and those of other languages with THL, we find that we are dealing with the same type of languages, namely polysynthetic and argument-dropping. There is possibly one property that distinguishes Cavineña THL constructions from those in other THL languages. This is found in "generic verb linkage" (particle *jadya* 'thus' + auxiliary). As we saw, in Cavineña "generic verb linkage" is restricted to the recapitulation of quotation events, while in many other THL languages, this kind of construction is used more generally for referring back to any event expressed in the tail clause.

Another difference between Cavineña THL constructions and those in other languages, in particular Papuan languages, is the absence of particular intonational properties. In Papuan languages, these play an important

function in the processing ease of very long clause chains/paragraphs. The lack of such types of clause chains/paragraphs in Cavineña is a possible motivation for explaining the absence of particular intonational properties in THL in this language.

Abbreviations

[ ]	multiple-word constituent	INT	interrogative
1, 2, 3	1st, 2nd, 3rd person	LIG	ligature
A	transitive subject	LOC	locative
ABIL	abilitative	LOC.GNL	general locative
ABS	absolutive	NEG	negative
AFFTN	affection	NMLZ	nominalizer
ANT	(immediate) anteriority	NPF	noun prefix
ASF	adjective suffix	O	object
ASSOC	associative	PASS	passive
AUGM	augmentative	PERF	perfect
BM	boundary marker	PL/pl	plural
CAUS	causative	PURP.GNL	general purpose
CAUS.INVLT	causative of involvement	PURP.MOT	purpose of motion
COMP	completive	RC	relative clause
CONTR	contrastive	REC.PAST	recent past
CONT.EVID	contrary to evidence	REDUP	reduplication
DAT	dative	REF	reflexive
DESID	desiderative	REITR	reiterative
DIM	diminutive	REM.PAST	remote past
DL/dl	dual	REP	reportative
DS	different subject	RESTR	restrictive
EMPH	emphatic	S	intransitive subject
ERG	ergative	SG	singular
FILL	(lexical) filler	SIMLR	similarity
FOC	focus	SS	same subject
FRUST	frustrative	STRG.EMPH	strong emphasis
GEN	genitive	T	text in the appendix
HORT	hortative	THL	tail-head linkage
IMP	imperative	UNCERT	uncertain
IMPFV	imperfective	VBLZ	verbalizer

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Appendix

Illustrative text

This text was recorded by Antonio Yubanera in the traditional Cavineña community of Galilea in February 2001. Antonio Yubanera relates a story about a hunter who once saved a poor baby caiman that was lost in the forest and how later he was threatened by the same (then grown up) caiman, and how he was saved with the help of a witty dog. The recording runs for 3 min 35 sec. It was transcribed and translated with the assistance of Antonio Yubanera himself.

The text is divided into sentences, which are numbered from T1 to T51. In addition to the first two introductory sentences, I have only provided the morphological segmentation and glosses for the sentences that contain subordinate clauses of the three types described in detail in this paper. For the other sentences, I have only provided the free translation in English. The subordinate clauses that are repeated in THL constructions are in boldface; those that are not are underlined.

T1 [*Ekwita* [<u>*babi-puji*</u> <u>*ju-kware=ke*</u>]] *kwatsabiji.*
man hunt-NMLZ be-REM.PAST=LIG story
'The story of the man who had been a hunter.' (cd001)

T2 *Ju-kware* *=tu* [*peadya* *ekwita*].
be-REM.PAST =3SG one person
'There was a man.' (cd002)

T3 ***Babi=ra*** ***kwa-kware*** *e-kike=ju.*
hunt=PURP.MOT go-REM.PAST NPF-forest=LOC
'He went hunting in the forest.' (cd002)

T4 [***Babi=ra*** ***kwa-atsu***] *=tuja* *=tu*
hunt=PURP.MOT go-SS =3SG.DAT =3SG
tsuru-kware [*peadya* *matuja*].
meet-REM.PAST one caiman
'Going hunting, he met a (baby) caiman.' (cd003)

T5 'He met him in the forest and on the ground.' (cd004)

T6 ***Nereka-da,*** *ashasha=piji* [*matuja* *jabakwa*].
miserable-ASF small=DIM caiman baby_animal
'The baby caiman (lost in the middle of the forest) looked (lit. was) miserable and so small.' (cd005)

T7 *Tudya* *=tu* *ekwita=ra* [***nereka-da*** ***ba-atsu***]
then =3SG man=ERG miserable-ASF see-SS
[*tuja* *shurumai=ju* *isha-tsu*] *duju-kware.*
3SG.GEN bag=LOC put_in-SS transport-REM.PAST
'Feeling sorry for him (lit. seeing him miserable), the man put him in his bag and took him with him.' (cd006)

T8 'Then he dropped him in a lake and the caiman lived.' (cd007)

T9 'He lived and grew up.' (cd008)

T10 [*Peadya* *tunka* *mara=kwana* *ju-atsu*] *=tu* *ekwita*
one ten year=UNCERT be-SS =3SG man
kwa-nuka-kware *babi=ra* [*tuke* *amaka=nuka=dya*].
go-REITR-REM.PAST hunt=PURP.MOT 3SG side=REITR=FOC
'About ten years later, the man went hunting again, in the same area.' (cd009)

T11 *Tume* ***kwa-atsu*** *=tuja* *=tu* *a-ti-kware=dya*
then go-SS =3SG.DAT =3SG affect-GO-REM.PAST=FOC
[*umada* *ai* [*tura* *iye-kara* *a-ya=kwana=ke*]].
many INT 3SG.ERG kill-DESID affect-IMPFV=PL=LIG
'Having gone, he killed all (the animals) that he wanted to kill.' (cd010)

T12 *Tume* *=tu* *jeti-nuka-ya=ke* *dyake* *chine=keja=kwita*
then =3SG come-REITR-IMPFV=LIG very night=LOC.GNL=RESTR
ju-diru-kware [*bei* *jiruru*].
be-GO-REM.PAST lake AT.EDGE.OF
'Then, as he was returning, he reached the shore of the lake very late at the end of the afternoon.' (cd011)

T13 'His house was very far. He had to go around the big lake.' (cd012)

T14 *Jadi=ke =tu peyainime ju-kware ekwita,* ***dyake peyainime.***
thus=LIG =3SG sad be-REM.PAST man very sad
'So he became worried, very worried.' (cd013)

T15 *Rike-taki=ama =tu bei ba-kware betsa-tsu.*
cross-ABIL=NEG =3SG lake see-REM.PAST swim-SS
'He felt that it would be impossible for him to cross the lake swimming.' (cd014)

T16 'In order to go around (the lake) it would be very far, and it was already late.' (cd015)

T17 [[***Jadya ju-atsu***] ***tuke dyake peyainime ju-neti-ya=ju***]
thus be-SS 3SG very sad be-STAND-IMPFV=DS
=tu [*matuja ebari*] *kwinana-kware* [*tuja y-akwa=ju*].
=3SG caiman big emerge-REM.PAST 3SG.GEN NPF-chest=LOC
'As he was (thinking) so and standing very worried, a big caiman appeared in front of him.' (cd016)

T18 'He (the caiman) talked to him.' (cd017)

T19 "You are a man and I feel very sad for you." (cd018)

T20 "I will help you. I will do you a favor." (cd019)

T21 *"Ike =mira =Ø maju=wie=ke =mira =Ø chachane-wa."*
1SG =2SG.ERG =1SG die=ANT=LIG =2SG.ERG =1SG cure-PERF
"You saved me once when I was about to die." (cd020)

T22 "I will do you the same favor." (cd021)

T23 [***Jadya ju-atsu***] *=tuja =tu k-isaani-mere-ti-kware*
thus be-SS =3SG.DAT =3SG REF-ride-CAUS-REF-REM.PAST
[*matuja ebari*] *pero eskupeta-ma.*
caiman big but shotgun-WITHOUT
'Having said so, he made him sit on top of him, but without his shotgun.' (cd022)

T24 *Eskupeta-ma =tuja =tu* ***iya-tsura-kware*** [*tuke dyake*].
shotgun-WITHOUT =3SG.DAT =3SG put-GO_UP-REM.PAST 3SG ON
'Without his shotgun, he put him up on top of him.' (cd023)

T25 [***Tuke iya-tsura-tsu***] *=tu* ***duju-kware=dya*** [***bei patya***].
3SG put-GO_UP-SS =3SG transport-REM.PAST=FOC lake IN.MIDDLE.OF
'He (the caiman) put him (the hunter) up on his back and carried him to the middle of the lake.' (cd024)

T26 [***Bei*** ***patya*** ***duju*** ***jadya*** ***a-atsu***] *=tu*
lake IN.MIDDLE.OF transport thus affect-SS =3SG
a-kere-ni-kware=dya [*tuja* *biji*] [*tuja* *biji*].
affect-CAUS.INVLT-REM.PAST=FOC 3SG.GEN will 3SG.GEN will
'Carrying him this way to the middle of the lake, he conducted (lit. affected) him according to his own (caiman's) will.' (cd025)

T27 'He did not carry him properly to the other shore.' (cd026)

T28 [***Jadya*** ***ju-ya=ju***] *=tu* *ju-eti-kware,*
thus be-IMPFV=DS =3SG be-COME-REM.PAST
iji-iji=ra ***kwa-kware*** *juye,* *peadya.*
drink-REDUP=PURP.MOT go-REM.PAST ox one
'As he was doing so, an ox arrived, an ox went to drink, one ox.' (cd027)

T29 [***Iji-iji=ra*** ***kwa-ya=ke***] *=tu* *matuja=ra* *isara-kware.*
drink-REDUP=PURP.MOT go-IMPFV=LIG =3SG caiman=ERG talk_to-REM.PAST
'As he was going to drink, the caiman talked to him.' (cd028)

T30 "[*Tata* *Juye*], *ejebucha* *=mi* *mira* *adeba-ya*
Mr. ox how =2SG 2SG.ERG know-IMPFV
[*jeeke* *ekwita* [*ike* *dyake=ke*]]?"
this man 1SG ON=LIG
"Mr. ox, what do you think of this man who is on top of me?" (cd029)

T31 "Should I go leave him on the solid ground, or not?" (cd030)

T32 [***Jadya*** ***ju-ya=ju***] *=tu* *juye=ra* *kemitsa-kware.*
thus be-IMPFV=DS =3SG OX=ERG answer-REM.PAST
["*Aijama*" *jadya*] *=tuja* *=tu* *a-kware* *juye=ra.*
no thus =3SG.DAT =3SG affect-REM.PAST OX=ERG
'As he was saying so, the ox answered him. "No," the ox told him.' (cd031)

T33 '"No," he told him.' (cd032)

T34 *Amena* [***jadya*** ***ju-atsu***][25] *=tu* *matuja* *ju-nuka-kware*
BM thus be-SS =3SG caiman be-REITR-REM.PAST
"aijama, *iya-ti-ya=ama* *=pa* *=mike* *=era."*
no put-GO-IMPFV=NEG =REP =2SG =1SG.ERG
'As he (the ox) was saying so, the caiman said again, "no, I won't go and leave you"." (cd033)

25. The use of an SS-temporal clause here is unexpected since its subject is different from the subject of the main clause.

T35 [***Jadya*** ***tura*** ***a-ya=ju***] =*tu* *ekwita*
thus 3SG.ERG affect-IMPFV=DS =3SG man
[***dyake*** ***peyainime***] ***ju-kware.***
very sad be-REM.PAST
'When he (the caiman) told him so, the man became very worried.' (cd034)

T36 [***Dyake*** ***peyainime*** ***ju-ya=ju***] =*tu* *chapa* *ju-ti-nuka-kware.*
very sad be-IMPFV=DS =3SG dog be-GO-REITR-REM.PAST
'As he was very worried, a dog arrived.' (cd035)

T37 [*Peadya* *chapa* *iji-iji-ya=ju*] =*tu*
one dog drink-REDUP-IMPFV=DS =3SG
matuja=ra *isara-nuka-kware.*
caiman=ERG talk_to-REM.PAST
'As the dog was drinking, the caiman talked to him.' (cd036)

T38 "You, Mr. dog, what do you think of this man on top of me?' (cd037)

T39 "Should I leave him or not?" (cd038)

T40 [***Jadya*** ***ju-ya=ju***] =*tu* *chapa=ra* *a-kware*
thus be-IMPFV=DS =3SG dog=ERG affect-REM.PAST
"aikwana *je-nuka-kwe=piji* *rekeja* *ike* *isawe!"*
FILL come-REITR-IMP=DIM around_here 1SG deaf
'As he was saying so, the dog told him "hm, come over here, I'm a bit deaf'". (cd039)

T41 *"Era* =*tu* *baka-ya=ama* [*mira* *isara-ya=ke*].
1SG.ERG =3SG hear-IMPFV=NEG 2SG.ERG talk_to-IMPVF=LIG.
Je-nuka-kwe *re-keja* *re-keja!"*
come-REITR-IMP here-LOC.GNL here-LOC.GNL
"I don't hear what you are saying. Come a bit closer!" (cd040)

T42 [***Jadya*** ***ju-ya=ju***] =*tu* *matuja* ***jipetana-kware.***
thus be-IMPFV=DS =3SG caiman move_closer-REM.PAST
'As he was saying so, the caiman went closer.' (cd041)

T43 ***Jipetana-ya=ju*** =*tu* *isara-nuka-kware.*
move_closer-IMPFV=DS =3SG talk_to-REITR-REM.PAST
'As he was moving closer, he (the fox) talked to him again.' (cd042)

T44 He told him the same thing "no, I don't hear you, keep coming a bit closer!" (cd043)

T45 [***Jadya*** ***a-ya-ju***] =*tu* *jipetana-nuka-kware.*
thus affect-IMPFV=DS =3SG move_closer-REITR-REM.PAST
'When he told him so, he (the caiman) kept going closer.' (cd044)

T46 *Amena* *ekwita=ra* *ba-kware* *japa-dama* *uwa* ***putitana-kware.***
BM man=ERG see-REM.PAST far-NEG solid_ground jump-REM.PAST
'Then, the man saw that the ground wasn't far anymore so he jumped.' (cd045)

T47 ***Putitana-tsu*** *diru-kware.*
jump-SS go-REM.PAST
'Having jumped he went away.' (cd046)

T48 'And he arrived at his house.' (cd047)

T49 'This is how he saved himself.' (cd048)

T50 'He first saved the caiman.' (cd049)

T51 'Then the dog saved him. This is it.' (cd050)

Referring to states and events

Subordination in Movima

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Complement and adverbial clauses in Movima (unclassified, Bolivia) are referential phrases that function as clausal arguments and adjuncts, respectively. Unlike main clauses, they are consistently overtly marked for person, tense, and lexical aspect. The reason for this typologically unusual property is that the referential phrases representing subordinate clauses are obligatorily possessed, that their predicates are derived by morphemes that distinguish between events and states, and that their determiner marks temporal deixis. Subordinate clauses therefore seem to display more finiteness features than main clauses, which is due to the cross-linguistically common referential character of subordinate clauses combined with the peculiar referential properties of Movima determiners and the low noun-verb distinction.

1. Introduction[1]

In Movima, an unclassified, endangered language of lowland Bolivia, complement and adverbial clauses have the form of referential phrases (RPs). The subordinate predicate is morphologically marked and preceded by an article. It is marked for person in the same way as a possessed noun.

All these features hint at a nominalization process, which is common for subordination cross-linguistically (see e.g. Horie 2001) and have their functional

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explanation in the fact that subordinate events are conceptualized as things rather than processes (see Cristofaro 2003).

However, despite their referential character, Movima complement and adverbial clauses show some properties which are normally considered indicators of finiteness (see Nikolaeva 2007), but which are not marked on main-clause predicates: while lexical aspect is not morphologically marked on main-clause predicates, there are two types of subordinate derivation, suffixation and reduplication, which overtly distinguish between events and states; tense is not obligatorily encoded on main-clause predicates, but the deictic properties of the article locate the subordinate event in time; person, not obligatorily marked on intransitive main predicates, is overtly encoded on both transitive and intransitive predicates of complement and adverbial clauses.

The assumption that the predicates of complement and adverbial clauses are nominalized forms is furthermore challenged by the fact that morphological marking is not a necessary requirement for a verb to occur inside a RP: unmarked verbs can occur inside a RP as well. RPs containing the morphologically marked, subordinate predicates, refer to states or events, whereas RPs containing underived verbs refer to event participants. Consequently, the derived forms show more typically "verbal" semantic features than underived verbs.

This paper is divided into two parts. The first part (Sections 2–4) introduces the most relevant features of Movima syntax, such as the basic structure of main clauses and main-clause predicates (Section 2), the structure of nominal constituents (3), and the noun-verb distinction (4). The second part (Section 5) describes subordinate clauses. Section 5.1 provides a brief account of the functions of subordinate clauses. Sections 5.2–5.4 discuss the characteristics of the subordinate predicate, such as subordinate derivation (5.2), argument structure (5.3), and voice marking (5.4). Section 5.5 describes the tense-marking effect of the article in subordinate clauses. The findings are summed up in Section 6.

2. Basic main clause structure

2.1 The major components of main clauses

Movima clauses are typically predicate-initial. Intransitive clauses may contain maximally one overt argument expression (whose realization is not grammatically obligatory), transitive clauses may contain two (only one of which is obligatorily realized). Additionally, there can be one or more adjuncts. Arguments and adjuncts consist of a pronoun or a referential phrase. Adjuncts are marked as oblique by the prefix *n-* (*nV-* before consonants) on the pronoun or article. Example (1) illustrates

an intransitive clause, example (2) a transitive clause; note the locative adjunct *nas towa:neɬ* 'onto the path' in (1). Since only RPs are relevant for the description of subordination, the examples given here contain RPs rather than pronouns.[2]

(1) *chi:~chi is rulrul n-as towa:neɬ*
MD~go_out ART.PL jaguar OBL-ART.N path
'Jaguars come out onto the path.' [BAS tx 212][3]

(2) *man<a>ye=is pa:ko os rulrul*
meet<DR>=ART.PL dog ART.N.PST jaguar
'The dogs found a jaguar.' [EAO Tigre y perro 003]

The predicate is typically a verb, as in the above examples, but it can also be a noun, as in (3) (*tomo:re*), or a demonstrative, as in (4) (*koro'*). As we will see (Section 3.2), RPs can also contain verbs instead of nouns.

(3) *tomo:re is e:ɬa=is ney wu'tu*
tomore ART.PL name=ART.PL here pot
'The name of those pots was *tomore*.' [HRR tx 265]

(4) *koro' kos lavanderiya ney*
DEM.N.AB ART.N.AB laundry here
'There is a laundry here (in the village).' [Agua sucia 006]

2.2 Argument encoding and alignment

The two arguments of a transitive clause are best characterized by their constituency properties (see Haude 2010a), one being internal, the other external to the predicate phrase. The internal argument (=*is pa:ko* in (2)) has the property of being obligatorily realized by a constituent that is "internally" cliticized to the predicate (causing stress shift, among other things, and represented by an equals sign). The absence of an internally cliticized constituent from a transitive predicate indicates the first person singular.

(5) *sal-na=Ø*
look_for=1SG
'I look for (you/him/her/it/them).'

---

2. Articles are an obligatory part of the referential phrase and do not distinguish between definite and indefinite reference (see 3.1). The English translations of Movima referential phrases therefore only reflect my context-based intuitions.

3. The source of the examples is given in square brackets. Elicitation examples are marked with [e]. When there is no source indication, this means that the example is a frequently occurring expression for which no particular source can be given.

The external argument of a transitive clause (cf. *os rulrul* in (2)), which has the same formal and behavioural properties as the single argument of an intransitive clause (*is rulrul* in (1)), is not obligatorily realized, not cliticized when represented by a RP and, when represented by a pronoun, cliticized in a way that does not involve a stress shift. This type of "external cliticization" is represented by a double dash, as illustrated in (6):

(6) *pasit-na=is--kas*
unfold-DR=3PL--OBV.3N
'They unfolded it.' [GB Ganado 009]

The representation of the arguments in a transitive clause as either external or internal to the predicate phrase is basically determined by a referential hierarchy, which includes deictic, semantic and pragmatic features (see Haude 2009b and Haude 2010a); basically, its structure is 1 > 2 > 3 topic (given) > 3 nontopic (new). The RP with the higher-ranking referent is internal, the RP with the lower-ranking referent external to the predicate phrase. Since it is not easy to find uncontroversial labels for the grammatical relations in Movima, and since the constituency properties of the arguments are based on a referential hierarchy, I label the internal argument, which refers to the higher-ranking participant, Proximate Argument (PROX), and the external argument, which refers to the lower-ranking participant, Obviative Argument (OBV).[4]

2.3 Verbal voice marking

Participant roles (actor and undergoer) are indicated by direct and inverse marking on the predicate. Direct marking, illustrated in (7), indicates that PROX is the actor and OBV the undergoer; inverse marking, illustrated in (8), indicates the reversed situation. I subsume direct and inverse under the category "voice" because they indicate the participant roles of the core arguments and because they belong to a paradigm of intransitive verb suffixes with a similar function (see Haude 2006: 323 and 5.4 below).

(7) *de:waj-**na**=us* *os* *rulrul*
see_tracks-DR=3M.AB ART.M.PST jaguar
'He saw (the tracks of) a jaguar.' [EAO Jaguar 062]

4. Cf. Bickel in press. These terms, although borrowed from the Algonquianist tradition, are to be understood as labels only, indicating that the system is primarily based on referential properties of the arguments rather than on semantic roles. Labels such as "internal/external", "object/subject", "first/second argument" etc., are misleading because of their traditional definitions, especially in view of the fact that in Movima, the referentially lower argument has the higher syntactic status (see Haude 2009b; Haude 2010a).

(8) *bu'ni* *yok-**kay**-a=us* *os* *rulrul*
perhaps catch-INV-LV=3M.AB ART.N.PST jaguar
'Perhaps a jaguar would catch him.' [EAO Jaguar 213]

In main-clause predicates, the inverse voice is invariably marked by the suffix *-kay*, as in (8) above. Direct is either marked by the suffix *-na*, as in (7) above, or by the base-internal allomorph *-a-*. The allomorph *-a-* appears when the verbal base is morphologically complex and the root has the shape CVC, and is represented as an infix <*a*> on synchronically unanalyzable bases, as in (2) above;[5] the suffix *-na* occurs in all other environments (see Haude 2006: 324f.).

Main-clause verbal predicates that contain neither direct nor inverse marking are intransitive, i.e. they form the predicate of a clause that may contain only one core argument (cf. (1) above). Example (9) illustrates the verb *kaykay* 'eat', which contains reduplicative middle marking (see Haude 2006: 345ff.), and whose patient can only be expressed as an oblique argument (as shown by the ungrammaticality of (9b)); the verb *ra̯łpite:łe* 'tear (at)' in (10) is marked by the intransitive voice suffix *-eła* (see Haude 2006: 330f.). The verb *ya:lo:we* 'drink' in (11) can be identified as monovalent simply due to the absence of direct or inverse marking.

(9) a. *kay~kay* *is* *tochik-mo* ***n-is*** *aro:so*
MD~eat ART.PL small-BE.bird OBL-ART.PL rice
'The chicks eat (the) rice.'

b. **kay~kay* *is* *tochik-mo* ***is*** *aro:so*
MD~eat ART.PL small-BE.bird ART.PL rice [e]

(10) *ra̯ł-pit-e:łe* ***n-is*** *kade:na*
tear-BE.half-AGT OBL-ART.PL chain
'(It) tore its chain.' [EGA Cazando 147]

(11) *ya:lo:we--us* ***ni-kis*** *lawa:jes*
drink--3M.AB OBL-ART.PL.AB remedy
'He drinks a remedy.' [EGA Dialogue 049]

The fact that the OBV argument in a transitive clause has the same formal properties as the single argument of an intransitive clause implies that direct transitive clauses, where OBV is the undergoer (see (7)), pattern ergatively, and inverse transitive clauses, where OBV is the actor (see (8)), pattern accusatively. We will see in 5.3 that subordinate clauses pattern in the opposite way: due to its possessor-like encoding, the single argument of the intransitive clause is encoded like PROX and not like OBV.

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5. In (2), the root is homophonous with the verb root *man-* 'shoot' and the ending *-ye* can be identified as the class marker for 'person', but synchronically, the verb base is not transparent.

3. Referential phrases

An argument or adjunct can be expressed by a pronoun or by a referential phrase. Typically, PROX is a bound pronoun and OBV a RP. Since only RPs are relevant to the discussion of subordination, I will describe only these in more detail here.

3.1 Articles

A RP is defined by the fact that it contains a determiner preceding a content word. The determiner can be an article or a demonstrative; in the context of subordination, only articles play a role, which is why we will restrict the discussion to articles. The articles are defined as such because they are forms that cannot occur without a subsequent content word; they do not, however, distinguish between definite and indefinite reference. There are some homophonous pronouns (e.g. the absential plural pronoun *is* is homophonous with the presential plural article *is*), but they belong to a different paradigm (see Haude 2006: 163f., 139f.).

Articles indicate natural gender (masculine and feminine for humans, neuter for non-human entities), number, presence versus absence, and ongoing versus ceased existence of the referent. The articles are given in Table 1.

Table 1. Articles

	presential/generic	**absential**	**past (ceased to exist)**
masculine	*us*	*kus*	*us*
feminine	*i'nes*	*kinos*	*isnos*
neuter	*as*	*kos*	*os*
plural	*is*	*kis*	*is*

The presential/generic article is used when the entity referred to is present at the speech situation, or when it is an entity which is universally known and whose location is fixed. The absential article is used when the referent is absent from the speech situation; the "past" article is used for entities that have ceased to exist. The three-way distinction is illustrated in (12):

(12) *as* *pa:ko* 'the/a dog (present or generic)'
kos *pa:ko* 'the/a dog (absent)'
os *pa:ko* 'the/a dog (not alive, not existing anymore)'

In 5.5 below we will see that in the context of subordination, the three forms of the neuter article are employed to distinguish three temporal, but no spatial categories.

3.2 Verbs in RPs

The content word in a RP is typically a noun, as was the case in the examples given so far, but it can also be a verb, as in (13) and (14) below. The referent of a RP containing a verb is determined by the verb's voice morphology: when the verb is marked as direct, the referent of the RP is the undergoer in a two-participant event, as in (13). When the verb is marked as inverse, the referent is the actor in a two-participant event, as in (14). Since the verbs are bivalent, they retain the PROX argument. In fact, due to the referential status of RPs and the absence of any formal distinction between PROX and a possessor (see 3.3), the morpheme representing PROX can also be interpreted as a possessor, as indicated by the alternative translations in brackets.

(13) *tatvo:seł [is loj-**na**=is juyeni]*
fall ART.PL wash-DR=ART.PL person
'The (things that) the people have washed have fallen down.'
(lit.: "The people's washed [things] have fallen down.") [EAO spont.]

(14) *nosdé jan-ne [kos rey suy-**kay**-a=sne]*
there which-BE.person ART.N.AB MOD rob-INV-LV=3F.AB
'Over there someone would rob her, you know.'
(lit.: "Over there whoever is her robber, you know.") [Dial. EA&AH 153]

When the verb inside the RP is monovalent, the referent of the RP is the participant in the event that would be expressed as the verb's argument if the verb occurred as a predicate. This can be seen in (15) and (16). (In (16), the RP is modified by a relative clause.)

(15) a. *ja<vu:~>buk--is*
fly<MD~>--3PL.AB
'They fly.'

b. *o'o:wa [is ja:<vu:~>buk] di' joychoy kay~kay n-i'*
audible ART.PL fly<MD~> REL probably MD~eat OBL-3PL
'One could hear the (ones that) flew, which probably ate them.'
(about bats eating fruits in a tree at night) [EAO, Wo'ray 002]

(16) a. *kat-pit--as*
break-BE.middle--3N.AB
'It broke/was broken.'

b. *vel-na=Ø [os rey kat-pit]*
look_at-DR=1SG ART.N.PST MOD break-BE.middle
'I looked at the broken (part), you know.' [ERC Sapo 016]

Also, when a verb occurs inside a RP, the article indicates referential properties of the event participant, as illustrated by the possessor in (17). Here, the article identifies the referent as female and out of existence at the time of speaking.

(17) *us* *a:kay-a=[isnos* ***tikoy-na*****=*****as]***
ART.M older_sibling-LV=ART.F.PST kill-DR=3N.AB
'the older brother of the (girl) it [i.e. the jaguar] had killed'
(lit: "the older sibling of its (female) killed one") [HRR_230808]

As we will see in Section 5 below, subordinate phrases can only contain the neuter article, since, unlike verbal RPs, they refer to states and events, i.e. non-human entities.

3.3 Possessor encoding

A possessor is encoded in exactly the same way as PROX, i.e. by internal cliticization. This is illustrated in (18) with a bound pronoun and in (19) with a referential phrase.

(18) *as* *roya=sne*
ART.N house=3F.AB
'her house'

(19) *as* *roya=kinos* *kwe:ya*
ART.N house=ART.F.AB woman
'the woman's house'

A first person singular possessor, which cannot be encoded by an enclitic pronoun, is represented by a prenominal marker *ł* that replaces the final element *s* of the article (see Haude 2006: 141f.).[6]

(20) *ał* *ro:ya*
ART.1 house
'my house'

A large number of Movima nouns, including kinship and body-part terms, are obligatorily possessed. Here, as in the case with bivalent verbs, the absence of an enclitic person marker entails the first person singular (as on bivalent verbs, the element *ł* is optional). Hence, for instance, *i'nes ay'ku* (ART.F aunt) means 'my aunt', and *as bo:sa* (ART.N arm) means 'my arm'.

4. Nouns and verbs

It has become apparent in the preceding sections that verbs and nouns show considerable syntactic overlap. The encoding of a possessor is identical to that of

6. On bivalent verbs, the proclitic marker of first person is optional.

PROX in a transitive clause (3.3). Both verbs and nouns can function as predicates (2.1), and both can occur in RPs (3.2); verbs in RPs denote not events, but participants in events, whose role as actor or undergoer is specified by the verbal morphology (see Haude 2010a).[7]

However, nouns and verbs are distinct morphologically. These differences are also rather subtle, since the morphology typical of the different word classes is lacking (see e.g. Schachter 1985): nouns are not morphologically marked for gender, number, or case. Likewise, the typical verbal categories tense, aspect, and mood are encoded by particles and not by verbal morphemes (see Haude 2010b).

The morphological distinctions between nouns and verbs basically involve morphemes that can be attached to nouns, but not to verbs. For instance, any noun can, in principle, be marked as possessed by an internally cliticized element (see 3.3 above), while verbs can only take an internally cliticized element when marked as bivalent by a direct or inverse marker.[8] The morphemes in (21) can only occur on nouns, but not on verbs (N = "nominal referent").[9]

(21)	*-tik*	VBZ	'to carry out the typical action involving N'
	-maj	LOC	'to be in/on N'
	-ni	PRC	'to be/become N'
	foot~[10]	POSS	'to be owner of N'

Furthermore, nouns, but not verbs, undergo reduplication to function as a subordinate predicate, as will be illustrated in 5.2 below. Verbs, in turn, can only take the suffix *-wa* in subordination. Accordingly, the morphemes in (21) can be considered verbalizers: in subordination, the derived forms take the suffix *-wa*, as illustrated in (22); they are never reduplicated.[11]

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7. By going a step further, it can be claimed that also in predicative function, verbs denote event participants rather than events. Example (1) might be paraphrased as "jaguars (are) the (ones that) come out onto the path", and (2) as "the dog's found one (was) a jaguar". For reasons of space I will not elaborate on this interpretation here (but see Haude 2009a and 2010a for a more detailed discussion).

8. An exception is formed by verbs that contain the suffix *-kał* 'immediately', which take an internal clitic even when intransitive (cf. Haude 2006:426f.).

9. Like other verbs, when the forms derived with these morphemes occur inside a RP, the RP refers to the event participant.

10. This reduplication process copies the first iambic foot of the word (Haude 2006:90f.).

11. The suffix *-tik*, however, never cooccurs with the subordination suffix *-wa*, but is replaced by it (see 5.2 below).

(22) *jayna* *oy-ye:mes* *os* *da'* *Peru-**maj-wa**=Ø*
DSC two-day ART.N.PST DUR.NST Perú-LOC-EVENT=1SG
'It was already two days that I was in (the village) El Perú.'
(lit.: "My staying in El Perú had already (lasted) two days.") [EAO Cbba 195]

Finally, nouns, but not verbs, can be incorporated into verbal bases, as illustrated in (23) (cf. Haude 2006: 283ff.).

(23) *wul-a-wa:ris,* *wul-a-saniya,* *wul-a-ma:do*
sow-DR-pumpkin sow-DR-melon sow-DR-bean
'(You) sow pumpkin, (you) sow melon, (you) sow beans.' [EAO Chaco I 072]

If the distinction between nouns and especially intransitive verbs is already difficult to make, the identification of adjectives as a distinct word class is even more problematic. Some property-denoting words are more reminiscent of nouns, others are more reminiscent of verbs. Examples of the first type are e.g. *tochik* 'small', *merek* 'big', *ra:pal* 'red' (see Haude 2006: 113 for a more extensive list). They share with nouns the possibility to be combined with e.g. the suffix *-tik* (e.g. *rapal-tik* 'to dye something red'). However, they are never found incorporated into verbs, and they cannot constitute the heads of compounds.

Other words that might be considered adjectives resemble (or are identical to) verbs with an obligatorily incorporated element (by default the semantically neutral classifier *-ra*). They are not attested with the nominal morphemes, but can undergo verbal voice marking, as illustrated in (24a) with the direct marker. When unmarked, as in (24b), they denote a state, without any indication of whether the state was brought about by an external agent or not.

(24) a. *dol-a:-mi=Ø--a*
full-DR-BE.water=1SG--3N
'I fill it with water.'

b. *dol-mi--a*
full-BE.water--3N
'It (is) full of water.'

These "verb-like adjectives" are relevant for the identification of the function of the two subordinating morphemes, to be discussed in 5.2 below.

5. Subordinate clauses

5.1 Types and functions of subordinate clauses

Three major types of subordinate clauses can be distinguished: relative, complement, and adverbial clauses. The focus of this paper is on the latter two, which

constitute referential phrases, consisting minimally of an article and a content word, and which I will subsume under the term "subordinate phrases".[12] The main formal distinction between subordinate phrases and "normal" referential phrases is that the content word in a subordinate phrase is morphologically derived in a specific way (see 5.2 below).

Complements function either as the single argument of an intransitive clause, as illustrated in (25), or as OBV of a transitive clause, as illustrated in (26) for a direct and in (27) for an inverse main clause.

(25) *tas-lo:maj [as kay-wa=sne n-as je:mes]*
three-BE.time ART.N eat-EVENT=3F.AB OBL-ART.N day
'Three times she eats during the day.'
(lit.: "Three times (is) her eating in the day.") [EAO Asilo 005]

(26) *bo ja' ena' kem<a:>ye=Ø [os jayna kayni-wa='ne]*
REAS just DUR.std take_for<DR>=1SG ART.N.PST DSC die-EVENT=3F
'Because I was simply thinking that she had already died.'
(lit.: "Because I am simply assuming her past-dying.") [EAO Esc. Mar. 090]

(27) *joro-poj-kay-a='ne [as jidan-wa='ne]*
sleep-CAUS-INV-LV=3F ART.N be_full-EVENT=3F
'Her being full has made her fall asleep.' [JMH spont.]

Complements also occur in negated clauses. The element *kas*, which introduces negative clauses, can be analyzed as a predicate *ka* 'is not' combined with the determining element *s* (see Haude 2006: 141f.), which introduces the complement. Consider (28) for a negated verbal and (29) for a negated nominal predicate (see 5.2 on the different derivations).[13]

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12. Relative clauses, which are not treated here, resemble main clauses in that their predicate is not morphologically derived.

13. Subordinate clauses, including relative clauses, are negated with the particle *loy*, as is illustrated in (i) for a complement and in (ii) for an adjunct.

(i) *jayna kaw-yemes [as **loy** joy-wa=y'łi]*
DSC much-day ART.N NEG.SUB go-EVENT=1PL
'It's been many days already that we haven't gone (there).' [EAO Asilo 079]

(ii) *u'ko kayłe-kay-a=n [n-as **loy***
PRO.M give-INV-LV=2 OBL-ART.N NEG.SUB
terani-wa=n n-as tijkarim-wa=n]
be_ill-EVENT=2 OBL-ART.N work-EVENT=2
'He [i.e. God] gives you that you don't get ill when you work.' [EAO Solopaye 008]

(28) *ka[s* *kay-wa=sne]*
is_not:DET eat-EVENT=3F.AB
'She didn't eat.' (lit.: 'Her eating was not.') [EAO Flaca 012]

(29) *ka[s* *juye<~ni>ni=as]* *bo* *rulrul--as*
is_not:DET person<~NMZ>=3N.AB REAS jaguar--3N.AB
'It was not a person, it was a jaguar.'
(lit.: 'Its being a person was not, because it was a jaguar.') [LYO 250808]

Adverbial clauses have the form of adjuncts. The oblique prefix *n-*, which marks adjuncts, has a very broad meaning. Oblique RPs containing simple nouns indicate locations, goals, sources, etc. (cf. Haude 2006: 281f.). Likewise, adverbial clauses can be of different types, e.g. temporal, causal, conditional. The most frequent adverbial clauses indicate a temporal relation, as in (30). Note that adverbial clauses often occur clause-initially, and the exact conditions of their occurrence in this position still need to be investigated.

(30) *jayna* *[n-os* *ena'* *łap-wa=Ø],*
DSC OBL-ART.N.PST DUR.STD bathe-EVENT=1SG
t *tokbaycho* *n-is* *motlo:to*
1INTR[14] remember OBL-ART.PL earring
'Then, as I was bathing, I remembered the earrings.' [EAO Aros II 044]

5.2 Subordinate derivation: Nominalization or lexical aspect?

The predicate of a subordinate phrase is always overtly morphologically marked. This marking can easily be considered nominalization (as in Haude 2006), since the derived forms usually occur in RPs,[15] and subordination through nominalization is a common phenomenon cross-linguistically (see e.g. Horie 2001; Noonan 2007; Payne 1997). However, I argue that the factor subordination in Movima shares with

14. First and second person are optionally encoded by an element preceding the head; the markers are distinct from the free pronouns, which can occur additionally (see Haude 2006: 274).

15. In the few cases in which subordinate predicates are not preceded by an article and can therefore be interpreted as main-clause predicates, they co-occur with an oblique free pronoun in topic position that refers to the time at which the situation takes place:

(i) *n-asko* *rey* *dichi<ye:~>ye=Ø* *di:ra*
OBL-PRO.N.AB MOD child<STATE~>=1SG still
'By then I was still a child, you see.'
(lit.: "At that (was) my being still a child, you see.") [BAS tx 009]

nominalizing subordination in other languages is the referential, "thing-denoting" (cf. Cristofaro 2003: 284) character induced by the article, while the derivation itself is not nominalization in the strict, morphological sense. First of all, there are no morphological tests for identifying the derived forms as nouns. Unlike underived nouns, they cannot be incorporated and cannot take any of the suffixes listed in (21).[16] It may even be the case that the "nominalizers", rather than marking a lexical category, cancel the entity/participant reading of an underived verb in a RP (see 3.2) and force a state/event reading instead. Therefore, I prefer to speak of subordinate derivation rather than of nominalization.

Subordinate predicates based on verbs are derived by the suffix *-wa*, as shown in (31).[17] Predicate nominals, in contrast, undergo infixing reduplication of the last CV-segment of the word (see Haude 2006: 84), as shown in (32). The derived forms are obligatorily marked for person by an internal enclitic, i.e. the subordinate phrase behaves like an inalienably possessed RP (see 3.3). Unlike RPs containing underived content words, which refer to entities (when nouns) or event participants (when verbs; see 3.2), subordinate phrases refer to situations, i.e. events or states. (This becomes most apparent when the article is considered, which can only be neuter and marks temporal, not spatial categories; see 5.5).

(31) a. *ya:lo:we–sne*
drink–3F.AB
'She drinks/drank.'

b. *isne alkava yey-na=sne [os ya:lowe-**wa**=sne]*
PRO.F.AB immediately want-DR-3F.AB ART.N.PST drink-EVENT=3F.AB
'Her, she wanted to drink at once.'
(lit.: "She, at once, wants her past-drinking.") [EAO Golpearse 010]

(32) a. *tolkosya--sne*
girl--3F.AB
'She is/was a girl.'

b. *dottoł--isne [n-os tolkos<**ya**~>ya=sne]*
wicked--3F.AB OBL-ART.N.PST girl<STATE~>=3F.AB
'She was bad when she was a girl.'
(lit.: "She is bad at her past-being a girl.") [EAO Mala 002]

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16. The subordination marker *-wa* can only be followed by bound lexical elements, which derive nouns that again denote concrete entities; e.g. *iwani-wa-m-ba* (talk-EVENT-LN-BR. round) 'telephone'.

17. The only exception is formed by subordinate clauses introduced by the particle *jan* 'that's why', in which predicates are derived by a suffix *-na* that is not identical to the direct marker (see Haude 2006: 474f.).

There are different ways of interpreting the two types of subordinate derivation. One is to see them as depending on the word class (as in Haude 2006): verbs receive the suffix *-wa* and nouns undergo reduplication.

However, another perspective that I wish to propose here, and which is reflected in my glosses of the subordination markers, is that the two derivational processes are considered overt markers of lexical aspect (*Aktionsarten*): *-wa* marks events and non-time-stable states, such as the state of being involved in an activity or being at a place ("X-ing" or "being at X"), and reduplication marks time-stable, existential states ("being X").[18] There are two kinds of evidence for this.

First, like verbs, also nouns can receive the suffix *-wa*. Unlike reduplication, the suffixation of *-wa* derives a word that does not denote the state of being the entity denoted by the noun, but the action typically associated with it, as shown in (33a). This meaning is identical to a denominal verb derived through the suffix *-tik* (cf. (21) in Section (4)), as can be seen in (33b).

(33) a. *sonoba:-wa=Ø* 'my digging out turtle eggs'
turtle_egg-EVENT=1SG

sutulra:-wa=Ø 'my hunting armadillo'
armadillo-EVENT=1SG

polawta:-wa=Ø 'my playing the flute'
flute-EVENT=1SG

b. *sonoba:-tik* 'to dig out turtle eggs'
turtle_egg-VBZ

sutulra:-tik 'to hunt armadillo'
armadillo-VBZ

polawta:-tik 'to play the flute'
flute-VBZ

With respect to the interpretation of the forms in (33a), two analyses are possible. It can be claimed that these forms are derived from the verbs in (33b), from which the suffix *-tik* is dropped in the course of the derivational process.[19] Alternatively, the suffix *-wa* itself can be seen as contributing the "event" reading: in the same way as *-tik*, it derives a word denoting the action typically associated with the

18. Note that *-wa* can also mark states, albeit not existential ones: it is also attached to words denoting processes and locational states (such as e.g. verbs derived by *-ni* 'to be/become N' or *-maj* 'to be at N', see (22)).

19. The same occurs with other verbal morphemes when a suffix is added (see 5.4 below and Haude 2006: 357ff.), like the reflexive/reciprocal suffix or the middle reduplication.

entity denoted by the noun. In contrast, reduplication derives a word that denotes the state of being an entity.

These two analyses of the suffix *-wa* on nouns, i.e. (i) as being attached to a form verbalized through *-tik*, which is then reduced to zero, or (ii) as being attached directly to the bare noun and adding the event reading itself, seem to be equally plausible. However, the evidence that the two types of subordinate derivation indicate lexical aspect (*-wa* deriving and event-denoting word) is much stronger when verblike adjectives are taken into account (see Section 4 above). It was shown above (Example (24)) that a verblike adjective like *dolmi* 'full of water' denotes a state. In the same way as a noun, an adjective of this type can undergo either suffixation of *-wa* or reduplication when functioning as a subordinate predicate. Here, the type of derivation clearly marks the aspectual difference between an event, as in (34a), and a state, as in (34b).

(34) a. *n-as* *dol-mi-**wa**=a*
OBL-ART.N full-BE.water-EVENT=3N
'when it has been filled with water' [e]

b. *n-as* *dol-<**mi**~>mi=a*
OBL-ART.N full-<STATE~>BE.water=3N
'when it is full of water' [e]

The fact that there can be a direct choice between the two types of subordinate derivation, without any reason to assume a verbalizing zero morpheme, is a further sign that the two types of subordinate derivation have an aspect-marking function, rather than that they depend on lexical class.

Verbs cannot be derived through reduplication. This can be seen as evidence that, even if verbs are interpreted as denoting event participants (see fn. 7), the denotee of a verb is a non-time-stable concept, only existing during the time of the event itself. Possibly as a correlate of this, there is a special suffix *-pa*, which derives agentive nouns that **do** undergo reduplication in subordination. Consider the difference between a main-clause verb and its subordinate form in (35) and the agentive noun and its subordinate form in (36).[20]

(35) a. *tolkara-na=us*
rob-DR=3M.AB
'He robs her/him/it/them.' [e]

b. *n-os* *tolkara-na-**wa**=us*
OBL-ART.N.PST rob-DR-EVENT=3M.AB
'when he robbed her/him/it/them' [e]

20. The suffix *-pa* can also occur on nominal bases, implying the same "action" reading as found with the suffix *-tik*: *rulrul-tik* 'to hunt jaguars', *rulrul-pa* 'jaguar-hunter'.

(36) a. *tolkara-na:-**pa**--us*
rob-DR-AG--3M.AB
'He is a thief/he is someone who regularly robs.' [e]

b. *n-os tolkara-na-<**pa**~>pa=us*
OBL-ART.N.PST rob-DR-<STATE~>AG=3M.AB
'when he was a thief/someone who regularly robbed' [e]

The relation between event/state derivation and word-class distinction is a topic for further research: the syntactic flexibility of different words still needs to be investigated in more detail in order to find out whether the type of derivation is based on lexical categories or whether we are dealing with productive aspectual markers. It should be clear, however, that reduplicated subordinate predicates denote existential states, while words suffixed with *-wa* denote events and non-time-stable states. Thus, independently of the underlying motivations, all subordinate predicates are overtly marked for lexical aspect, something that cannot be said of main-clause predicates.

5.3 Argument structure and alignment in subordinate phrases

As was mentioned before, subordinate phrases are obligatorily possessed: the absence of an internally cliticized element indicates the first person singular. This is the case both of transitive (37) and intransitive subordinate predicates, be they verbal (38) or nominal (39).

(37) *yey-na=Ø [as tikoy-na:-wa=Ø--as]*
want-DR=1SG ART.N kill-DR-EVENT=1SG--3N.AB
'I want to kill it.' [ERC mono 003]

(38) *yey-na=Ø [os joy-wa=Ø]*
want-DR=1SG ART.N.PST go-EVENT=1SG
'I wanted to go.' [BAS tx 056]

(39) *[n-os tolkos<ya:~>ya=Ø] kayłe:-kay=Ø--i'ne*
OBL-ART.N.PST girl<STATE~>=1SG give-INV=1SG--3F
'When I was a girl, she gave (them) to me.' [EAO Aros 006]

Like transitive main-clause predicates, transitive subordinate phrases can contain two core arguments, which shows that despite the appearance as a possessed RP, subordinate phrases also have clause-like syntactic properties (cf. Comrie & Thompson 1985: 372f.). The encoding of the two arguments in a transitive subordinate clause follows the same principles as in main clauses: the participant that ranks higher in the referential hierarchy is encoded as PROX/possessor, i.e. represented by an obligatory, internal enclitic. In (40), this is illustrated with the direct, and in (41) with the inverse voice (see 5.4 below on reduplicative inverse marking).

(40) *yey-na=Ø [as visitar-na:-wa=Ø kus alkaka:ye=Ø]*
want-DR=1SG ART.N visit-DR-EVENT=1SG ART.M.AB relative=1SG
'I want to visit my relative.'
(lit.: "I want my visiting my relative.") [EAO Visita 047]

(41) *isko kas jiwa-wa=is*
PRO.PL.AB is_not come-EVENT=3PL
[n-as rey vel~vel-wa=n--is]
OBL-ART.N MOD INV~look_after- EVENT=2--3PL
'They don't come to see you, you know.'
(lit.: "They, their coming for you being seen (by) them is not.")
[EAO In between 090]

Example (42) illustrates multiple subordination: here, the OBV argument of the subordinate phrase is another subordinate phrase (modified by a relative clause) that is transitive and contains two overtly realized arguments.

(42) *kaw-ra as dit-tej-wanas-a=n*
much-BE.NTR ART.N heavy-BE.breath-ABSTR-LV=2
[n-as ye~yey-wa=n [as ji:sa-na-wa=n
OBL-ART.N DR~want-EVENT=2 ART.N make-DR-EVENT=2
kos sot-ra di' dochik merek]]
ART.N.AB other-BE.NTR REL more big
'You have a lot of power when you want to make a different thing that is a bit larger.' [HRR tx 420f.]

Like in a transitive main clause, the OBV argument of a transitive subordinate phrase can be expressed by a bound pronoun, as in (43) (and (37) above), or omitted, as in (44).

(43) *joychoy yey-na=sne [as kay<a>łe-wa=sne--kus*
probably want-DR=3F.AB ART.N give<DR>-EVENT=3F.AB--OBV.3M.AB
ni-kis wa:ka]
OBL-ART.PL.AB COW
'Probably she wants to give him cattle.' [EAO Patrona 008]

(44) *jayna [n-os ma~man-wa=us], jayna*
DSC OBL-ART.N.PST DR~shoot-EVENT=3M.AB DSC
chi:~chi os pa:ko
MD~go_out ART.N.PST dog
'When he had shot (the jaguar), the dog came out (of the jaguar's grip).'
[EAO Tigre y Perro 022]

When two third persons are involved, the main-clause PROX is normally also encoded as PROX in the subordinate phrase. When it is the undergoer, the subordinate predicate is marked as inverse, as in (45).

(45) *i'ne yey-na='ne [as pu<ru~>rut-wa='ne us itila:kwa]*
PRO.F want-DR=3F ART.N kiss<INV~>-EVENT=3F ART.M man
'She wants the man to kiss her.' [e]

Due to the obligatory encoding of person, the subordinate phrase can be interpreted independently of the main clause: there is no coreferential argument deletion; zero encoding implies the first person singular, as was shown above. This is also clearly apparent in (46), where neither of the arguments in the subordinate phrase is coreferential with the argument of the main clause.

(46) *yey-na=us [as joy-a-łe:-wa=Ø*
want-DR=3M.AB ART.N go-DR-CO-EVENT=1SG
kus a:kay-a=us]
ART.M.AB older_sibling-LV=3M.AB
'He wants me to take his brother with me.' [BAS tx 206]

The subordinate phrase can also help to retrieve a main-clause argument that is not overtly expressed, as in (47) and (48), where both the main clause and the subordinate phrase contain an intransitive predicate. The argument of the main clause needs to be inferred from the context, while the argument of the subordinate phrase is obligatorily overtly encoded.

(47) *jayna bote-wuktu [bo os dejal-wa=**sne**]*
DSC borrow-pan REAS ART.N.PST cook-EVENT=3F.AB
'Then (she) borrowed pans in order to cook.'
(lit.: "Then (she) pan-borrows for her past-cooking.") [EAO In between 205]

(48) *joy-cheł [n-os te:lo-wa='**ne** nosdé]*
go-R/R OBL-ART.N.PST dance-EVENT=3F there
'She went to dance there.'
(lit.: "(She) goes for her past-dancing there.") [EAO In between 012]

As can be seen, person marking on subordinate predicates is more consistent than on main-clause predicates, because even the single argument of an intransitive clause is obligatorily encoded. The unexpressed argument of the main clause can be inferred from the subordinate clause, not vice versa.

The fact that intransitive subordinate predicates are marked for person by an internal enclitic has an interesting secondary effect: while in main clauses the argument of the intransitive clause aligns with OBV of the transitive clause, in subordinate phrases, which have the form of possessed RPs, it aligns with PROX, as

illustrated in (49) below. Accordingly, a direct transitive subordinate phrase (49b) patterns accusatively, since the actor is encoded like the single argument of an intransitive subordinate phrase (49a); an inverse subordinate phrase (49c) patterns ergatively, since the undergoer is encoded like the single argument of an intransitive clause. (The reduplicative marking of direct and inverse voice in subordinate phrases is described in the following section.)

(49) a. intransitive:

yey-na=Ø *[as* *joy-wa=**sne**]*
want-DR=1SG ART.N go-EVENT=3F.AB
'I want her to go.' [e]

b. transitive direct:

yey-na=Ø *[as* *sa~sal-wa=**sne***
want-DR=1SG ART.N DR~search-EVENT=3F.AB
kus *a:kay=Ø]*
ART.M.AB older_sibling=1SG
'I want her to look for my older brother.' [e]

c. transitive inverse:

yey-na=Ø *[as* *sal~sal-wa=**sne***
want-DR=1SG ART.N INV~search_for-EVENT=3F.AB
kus *a:kay=Ø]*
ART.M.AB older_sibling=1SG
'I want my older brother to look for her.' [e]

Thus, in terms of argument encoding, subordinate phrases are not underspecified in comparison to main clauses, unlike what is often the case cross-linguistically (see Croft 2003: 216–217); on the contrary: due to the fact that also intransitive subordinate phrases are obligatorily marked as possessed, they show more consistent person marking than main clauses. A further consequence of the possessor marking on intransitives is that the alignment patterns of subordinate phrases are opposite to those of main clauses (see 2.2 above), i.e. the direct subordinate phrase patterns accusatively and the inverse ergatively.

5.4 Voice marking on subordinate predicates

Main-clause predicates can be marked with various voice morphemes. The direct and inverse voice markers, which overtly mark all transitive main-clause predicates, were already introduced in Section 3 above. Apart from that, there are several morphemes that mark monovalent verbs, on which they indicate the participant role of the single core argument: the "agentive" suffix *-ełe* indicates that the single participant is the agent, the "resultative" suffix *-'i* indicates that it is the

undergoer, and the "reflexive/reciprocal" suffix *-cheł* as well as the reduplicative "middle" marker indicate that the single argument expresses agent, or agent and undergoer simultaneously.

On subordinate predicates, fewer of these categories are overtly marked than on main-clause predicates.[21] Of the voice morphemes, only the direct and the agentive marker are overtly expressed everywhere. Inverse marking only occurs under specific morphological conditions. Reflexive/reciprocal and middle are never marked on subordinate predicates. In principle, the absence of a direct or inverse marker indicates that the predicate is intransitive; only in specific contexts (see (58) and (59) below) can an unmarked predicate be identified as transitive inverse.

First, consider (50) and (51), which respectively show that reflexive/reciprocal and middle marking are dropped in subordination. Compare the corresponding predicates in the main clause.

(50) ***des-cheł**–us, che [n-os **des-wa**=us], …,*
jump-R/R–3M.AB and OBL-ART.N.PST jump-EVENT=3M.AB
dum-me:-kay=Ø n-as ba<kwa:~>kwa=Ø
find-BE.person-INV=1SG OBL-ART.N head<INAL~>=1SG
'He jumped, and as he jumped (lit.: "in his past jumping"), …,
he hit me against my head.' [EAO Golpearse 032]

(51) *ka'de=[as jayna **pat-wa**=is], jayna **pat~pat***
end_of=ART.N DSC sprout-EVENT=3PL.AB DSC MD~sprout
nokopa jayna
like_this DSC
'When they sprout (lit.: "at the end of their sprouting"),
then (they) sprout like this.' [EAO Chaco I 065]

Example (52) shows that the 'agentive' marker *-eɬe* is retained (albeit shortened to *-eɬ*, as always before further suffixes; see Haude 2006: 331).

(52) *[n-os la' rey pul-**eɬ-wa**=y'ɬi]*
OBL-ART.N.PST ANT again sweep-AGT-EVENT=1PL
'when we last swept' [EAO Dialogue 006]

Direct is always, inverse only sometimes marked on subordinate predicates. Inverse is either marked by CVC- or base-final reduplication (see Haude 2006: 84ff.), or it is omitted altogether; the direct suffix *-na* can optionally be replaced by CV-reduplication. All this depends on the morphological properties of the verbal base.

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21. This is not only the case in subordination: these morphemes are also absent when other verbal affixes are attached, such as causative *-poj* and benefactive *-kwa* (Haude 2006: 357ff.).

When a verbal base consists of the root alone, the direct allomorph *-na* is optionally replaced by word-initial CV-reduplication, as shown in (53). In contrast, inverse marking on these bases is obligatorily marked by bimoraic reduplication (CVC~ or CV:~), as shown in (54).

(53) a. *n-os* *sal-**na:**-wa=Ø*
OBL-ART.N.PST search_for-DR-EVENT=1SG

b. *n-os* ***sa**~sal-wa=Ø*
OBL-ART.N.PST DR~search_for-EVENT=1SG
'when I looked for you/her/him/it/them' [e]

(54) a. *n-os* ***sal**~sal-wa=Ø*
OBL-ART.N.PST INV~search_for-EVENT=1SG
'when you/she/he/it/they looked for me'

b. **n-os* *sal-**kay**-wa=Ø*
OBL-ART.N.PST search_for-INV-EVENT=1SG [e]

When a verbal base consists of a root with more than one syllable, so that it is marked as direct by the suffix *-na* (cf. 2.3 above on the distribution of *-na* and *-a-*), the suffix *-na* is always retained on the subordinate predicate, as shown in (55); reduplication is no option here.

(55) *yey-na=n* *[as* *ya:lowe-łe-**na:**-wa=Ø* *n-is*
want-DR=2 ART.N drink-CO-DR-EVENT=1SG OBL-ART.PL

chi:loj *di'* *pokso]*
provision REL chicha

'Do you want me to give (you) to drink of my provisions, which is *chicha*?'
[EAO Sueño 103]

The inverse form of a subordinate verb of this type is formed by infixing CV-reduplication (see Haude 2006: 84f.), as shown in (56a). Example (56b) again shows that the suffix *-kay* on a subordinate predicate is ungrammatical.

(56) a. *jayna* *[n-os* *e<**la**~>la:-wa=Ø--us]*
DSC OBL-ART.N.PST leave_behind<INV~>=1SG--3M.AB

it *joy-cheł* *tijka:rim*
1INTR go-R/R work

'When he left me I went to work.' [BAS tx 011]

b. **[n-os* *ela-**kay**-wa=Ø--us]*
OBL-ART.N.PST leave_behind-INV-EVENT=1SG--3M.AB [e]

On complex verbal bases that are marked as direct by the base-internal affix *-a-*, this affix is retained in the subordinate form, as shown in (57). Inverse marking, however, is dropped from these bases, as shown by (58).

(57) *nokwa t joy-cheł [n-as ken<**a**>pa:-wa=Ø--sne]*
right_now 1INTR go-R/R OBL-ART.N tell<DR>-EVENT=1SG--3F.AB
'Right now I'll go and tell her.' [EAO In between 120]

(58) *jankwa=us [n-os **kempa**-wa=y'łi]*
said_thing=3M.AB OBL-ART.N.PST inform-EVENT=1PL
n-os ima:yoj
OBL-ART.N.PST morning
'He said, as (he) told us in the morning …' [JMH Perro II 048]

However, an unmarked subordinate predicate can be identified as transitive inverse when it occurs with two argument expressions: in (59), both arguments are overtly expressed by bound pronouns.

(59) *bo [os **kay-poj**-wa=y'łi--kisne jayna]*
REAS ART.N.PST eat-CAUS-EVENT=1PL--OBV.3F.AB DSC
'… so that she could give us food then.' [EAO In between 206]

When OBV is not overtly expressed, as in (58), the bases of these subordinate predicates look like intransitive bases, like those in (50)–(52) above, and the inverse interpretation is only triggered by the context. In the following example, in contrast, the subordinate predicate *dummewa* has to be interpreted as reciprocal, because the text is about how two people met, and not about how they were met by someone else:

(60) *[n-os rey jayna **dumme-wa**=is]*
OBL-ART.N.PST again DSC encounter-EVENT=3PL.AB
'when they met' (not: "when he/she/it/they met them") [HRR tx 183]

In the domain of voice marking, then, we see that certain categories are not overtly distinguished in subordinate phrases, while they are in main clauses. Most importantly, the inverse is not overtly marked on certain subordinate verbs: this shows that unlike main-clause predicates, transitivity is not overtly marked on all subordinate predicates.

5.5 The article in subordinate phrases

Subordinate phrases are marked for an important "verbal" feature that main clauses lack: tense. As was illustrated in 3 above, in RPs referring to concrete entitites, the article indicates presence, absence, and ceased existence of the referent. With subordinate phrases, the article does not indicate presence or absence, but has

an exclusively temporal interpretation, including a third temporal category. The presential article indicates nonpast, the absential article indicates that the event took place on the same day, but before the moment of speaking, and the past article indicates that the event occurred before the day of speaking. The examples in (61), offered spontaneously during elicitation, illustrate this contrast.

(61) a. *jayna it ba:lomaj*
DSC 1INTR finish
*[n-**as** ji:sa-na:-wa=Ø as chakdi]*
OBL-ART.N make-DR-EVENT=1 SG ART.N fence
'I'll finish making the fence (I'm still building it).' [e]

b. *jayna it ba:lomaj*
DSC 1INTR finish
*[no-**kos** ji:sa-na:-wa=Ø as chakdi]*
OBL-ART.N.AB make-DR-EVENT=1SG ART.N fence
'I just finished making the fence (today).' [e]

c. *jayna it ba:lomaj*
DSC 1INTR finish
*[n-**os** ji:sa-na:-wa=Ø as chakdi]*
OBL-ART.N.PST make-DR-EVENT=1SG ART.N fence
'I finished making the fence (before today).' [e]

The three-way temporal distinction, which does not exist with RPs with concrete referents, can be explained by the fact that subordinate phrases refer to concepts that do not have a spatial location and that are not time-stable. Therefore, the article can be employed unambiguously for temporal instead of spatial deixis, the absential article introducing an additional temporal category.

At the same time, there is a direct parallel with RPs denoting concrete entities, whose referent must have ceased to exist in order to be referred to with the past article. In the case of times and situations, the absential and past forms can be used only when the situation is concluded. A situation that has started in the past but is continuing in the present is always referred to with the presential article:

(62) *jayna jaysot sotak-sema:na [**as** ya:lowe-wa=y'ɬi*
DSC seem one-week ART.N drink-EVENT=1PL
n-as cho:'ɛs di' to:mi]
OBL-ART.N dirty REL water
'It has been for about one week that we have been drinking dirty water.'
[EAO Agua sucia 001]

The most interesting feature, which could be observed in many of the above examples, is that the tense encoded by the article in a subordinate phrase has scope over the

main-clause predicate. This is an effect of implicature, which can only be cancelled when the main clause contains an element that contradicts the temporal information given by the article. In (63), for instance, the imperative form of the main-clause predicate implies nonpast tense; therefore, the past-tense article marks the temporal location of the subordinate event only.

(63) *ajlomaj-**ti*** *[**os*** *naye-wa=n]*
tell_about-IMP.DR ART.N.PST marry-EVENT=2
'Tell (her) of how you married!'
(lit.: "Narrate your past-marrying!") [EAO spont.]

The article is the main marker of tense in a text, particularly because of the high frequency of subordinate phrases. This is illustrated by the following examples, which are first sentences of past-tense narrative texts. They both contain RPs referring to fixed locations, which, therefore, contain the presential article (cf. Haude 2004). Therefore, temporal reference is established exclusively by the subordinate phrases.

(64) *[n-**os*** *ney* *jayna* *joy-wa=n* *ulkwat]*
OBL-ART.N.PST here[22] DSC go-EVENT=2SG PRO.2SG
jayna *t* *ji<wa:>wa* *neyru* *n-**as*** *Santa* *Ana*
DSC 1INTR come<MD~> here OBL-ART.N Santa Ana
'When you had left that time, I came here to Santa Ana.'
(lit.: "At that past-having left of yours, I come here to Santa Ana.")
[EAO In between 001]

(65) *kaw-ra* *[**os*** *iloni-wa=y'ɬi],* *as-na=y'ɬi* *n-**as*** *Ma:to*
much-BE.NTR ART.N.PST walk-EVENT=1PL sit-LOC=1PL OBL-ART.N Mato
'We walked a lot, we lived by the Mato (river).'
(lit.: "A lot (is) our past-walking, we live by the Mato.") [EGA Cazando 001]

Tense particles can occur inside subordinate phrases as well (see Haude 2010b). Consider the following examples with the past particle *la'* (66) and the future particle *nokowa* (67). The corresponding temporal interpretation of the main clause is again an implicature effect.

(66) *ka:'i,* *[n-os* *rey* ***la'*** *sa:waro],* *[n-os* ***la'***
no OBL-ART.N.PST MOD ANT Saturday OBL-ART.N.PST ANT
rey *pul-eɬ-wa=y'ɬi],* *kas* *rey* *baw-ra-wa=y'ɬi*
again sweep-AGT-EVENT=1PL is_not MOD pay-BE.NTR-EVENT=1PL
'No, last Saturday, when we swept last time, again we weren't paid, you know.'
[EGA Dialogue 006]

22. When occurring inside a RP, *ney* marks definiteness (Haude 2006: 142f.).

(67) *[n-as* ***nokowa*** *jiwa-wa=us* *ney=s* *agosto]*
OBL-ART.N right_now come-EVENT=3M.AB here=DET August

jayna *n-a'ko* *kempa:-wa=Ø--us*
DSC OBL-PRO.N inform-EVENT=1SG--3M.AB

'When he comes now in August, that will be when he tells me.'
[EAO Patrona 043]

Thus, the same elements that serve for temporal reference in main clauses occur in subordinate phrases; there is no reduced temporal information in subordination. In addition, due to the fact that in Movima, tense is a feature of referential elements, subordinate phrases provide consistent temporal information, a feature that main-clause predicates lack.

6. Conclusion

From the findings presented in the previous sections, I conclude that subordinate phrases in Movima encode more distinct categories commonly thought of as "verbal" than main-clause predicates. The main differences are listed in Table 2, with ± symbols roughly indicating the presence or absence of certain features. It can be seen that only in the domain of voice marking, subordinate phrases contain less information than main-clause predicates.

Table 2. Categories encoded in main vs. complement and adverbial clauses

Main clause	Category	Subordinate phrase
–	Obligatory encoding of single argument of intransitive clause	+
–	Overt marking of lexical aspect (event/temporal state vs. existential state)	+
–	Consistent tense marking	+
+	Two overt core arguments possible	+
+	Consistent voice marking	–

One reason for the high degree of overt encoding of information on person, aspect and tense in subordinate phrases is that many features generally considered as typical of predication, are associated with reference in Movima. The obligatory encoding of the argument of a subordinate intransitive clause is due to the fact that

subordinate clauses have the form of obligatorily possessed RPs, and possessors are encoded in the same way as PROX.[23]

The overt encoding of lexical aspect is due to different strategies of subordinate derivation, either by suffixation of *-wa* or by reduplication. These are likely to depend on the word class that constitutes the predicate, and verbal and nominal predicates have the different properties of denoting situations and entities, respectively. However, on words that occupy an intermediate state between nouns and verbs, such as some adjectives, there is a choice between the two types of derivation, which marks lexical aspect. This shows that the choice of the derivational morpheme is not (or not entirely) lexically conditioned.

The encoding of temporal deixis is not a morphological feature of verbs, but a property of referential elements (in particular, articles) in Movima. The fact that subordinate clauses have the form of referential phrases explains why tense marking is consistently marked on subordinate, but not on main clauses. Furthermore, due to the fact that subordinate predicates denote not concrete entities, but states and events, the article does not encode spatial deixis in subordinate phrases and can make more fine-grained temporal distinctions than with underived nouns.

We also saw that the argument structure of subordinate predicates is basically the same as that of main-clause predicates: the referentially higher-ranking participant in a two-participant event is encoded like a possessor, and the lower-ranking one like the argument of an intransitive main clause. However, the argument of an intransitive subordinate phrase is also encoded like a possessor, which leads to a reversed alignment split: it aligns with the actor of a direct and the undergoer in an inverse clauses.

Moreover, on the semantic side, we find that the predicates of subordinate phrases denote situations (states and events), which is a prototypical property of verbs (see Croft 2003: 185), whereas RPs containing verbs refer to a participant in a situation, not to the situation itself.

Thus, when considered from a typological perspective, there is a paradoxical situation in Movima: subordination is carried out in the form of a referential phrase, which, together with morphological marking of the predicate, can be considered an subordination-by-nominalization strategy. However, with respect to the categories encoded, the result of this operation has more "verblike" characteristics than a main-clause predicate, an effect that can be ascribed to the properties of Movima referential phrases and to the distributional similarities of nouns and verbs.

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23. In fact, rather than asking whether possessor encoding in subordinate clauses can be compared to argument encoding in main clauses, it might be questioned whether PROX in main clauses is a syntactic argument at all, and not a phrasal modifier as well (cf. Haude 2010a).

Abbreviations

~	reduplication
< >	infixation
=	internal cliticization
--	external cliticization
1	first person
2	second person
3	third person
AB	absential
ABSTR	abstract nominal
AG	agent nominalization
AGT	agentive voice
ANT	anterior
ART	article
BE	bound nominal element
BR	bound root
CAUS	causative
CO	co-participant
CSQ	consequence
D	dummy
DET	determiner
DR	direct
DSC	discontinuous
DUR	durative
EV	evidential
EVENT	event subordinator
F	feminine
HYP	hypothetical
IMM	immediate past
IMP	imperative
INAL	inalienable
INTR	intransitive
INV	inverse
LOC	locative verbalization
LV	linking nasal
LV	linking vowel
M	masculine
MD	middle
MOD	modal
N	neuter
NEG.SUB	subordinate negation
NST	nonstanding
NTR	neutral
OBL	oblique
OBV	obviative
PL	plural
POSS	possessive
PRC	process verbalization
PRO	free pronoun
PST	past tense
R/R	reflexive/reciprocal
REAS	reason
RED	reduplication
REL	relativizer
SG	singular
STATE	state subordinator
STD	standing
VBZ	action verbalizer

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Semantic and grammatical integration in Yurakaré subordination*

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Yurakaré (unclassified, central Bolivia) has five subordination strategies (on the basis of a morphosyntactic definition). In this paper I argue that the use of these different strategies is conditioned by the degree of conceptual synthesis of the two events, relating to temporal integration and participant integration. The most integrated events are characterized by shared time reference; morphosyntactically they are serial verb constructions, with syntactically fused predicates. The other constructions are characterized by less grammatical integration, which correlates either with a low degree of temporal integration of the dependent predicate and the main predicate, or with participant discontinuity.

1. Introduction

1.1 General data

Yurakaré (Yuracaré, Yurújure) is an unclassified language spoken by an indigenous group of the same name in central Bolivia. There are no reliable figures on the number of speakers, but the general consensus is that it revolves around 2,500. Although some attempts have been made to classify Yurakaré in larger linguistic groupings (e.g. Swadesh 1959; Suárez 1974; Greenberg 1987),[1] none of these proposals has had a lasting impact, therefore the language is often considered an isolate.

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1. These studies have met with considerable criticisms, mainly on methodological grounds; Swadesh and Suárez used glottochronology to come to their conclusions, Greenberg used mass comparison. Both approaches are currently seen as methodologically unsound by many

The area (approximately the size of Belgium) in which the Yurakaré live in dispersed communities, has remained relatively stable in the last 400 years, in spite of many migrations due to colonial pressure of different kinds. Their geographically closest neighbors, apart from the Spanish-speaking mestizo community, are Quechuas (Quechuan) to the south and southwest, Trinitario-speaking Mojeños (Arawak) to the north and northeast, and Chimane (Mosetenan) to the northwest.

The Yurakaré language (for a full account see Van Gijn 2006) is an agglutinating, mildly polysynthetic language. It employs both head-marking and dependent-marking strategies, the former being predominant. Word order is relatively free, but Yurakaré is basically a V-initial language (subordinate clauses, however are almost always verb-final). Alignment is nominative-accusative, indicated by cross-referencing affixes on the verb (subjects are suffixed, objects are prefixed).

The example sentences used in this paper represent a mix of (mainly) elicited material and material from free speech, obtained during several field trips. I will indicate the source of each example sentence, giving the initials of the consultant, followed by the initials of the village (see Footnote *) and the year of collection. In addition, I will indicate whether the example sentence is elicited or free speech by the use of [square brackets] in the former case, and (round brackets) in the latter.

The paper is built up as follows: in Section 2, I define the notion of subordination as it is used in this paper. Section 3 presents the types of clause combinations that exist in Yurakaré, and discusses their grammatical and notional characteristics. In Section 4 I discuss the data presented in Section 3, analyzing them in terms of event integration, consisting of participant (perspective) continuation and temporal integration. Section 5, finally, summarizes the findings of this paper.

2. Defining subordination

In this paper I use the following definition of subordination: a combination of two or more predicates or clauses within one sentence such that one of them is grammatically dependent on the other. This grammatical dependence is signaled by some grammatical device in such a way that the subordinate clause (a) differs from a non-subordinate clause, and (b) cannot stand on its own. Grammatical devices to indicate subordination are for instance the presence of subordinating

historical linguists (cf. Campbell 1998). Moreover, Greenberg on the one hand and Swadesh and Suárez on the other reached contradicting conclusions with respect to the classification of Yurakaré.

morphemes, nominalizing morphemes, intonation, restricted word order, or the reduction or absence of inflectional morphology. With respect to this latter feature, a distinction that will be used throughout this paper is the one between balanced and deranked verbs[2] (Stassen 1985):

Balanced verb:
A verb form that has all inflectional possibilities (TAM, person markers) of a verb form in an independent declarative clause has.

Deranked verb:
A verb form that lacks inflectional possibilities such that it could not occur in an independent declarative clause.

It has been noted by several authors (e.g. Givón 2001; Cristofaro 2003; Noonan 2007) that the form of a subordinate clause closely correlates with the meaning relation between the main and subordinate clause. More in particular, different levels of clause union are claimed to represent different levels of conceptual integration of the main and dependent event. Although cross-linguistic tendencies can be found in the correspondence of semantics and morphosyntax, languages can differ from each other in how exactly divisions are made.

In this paper I claim that the form of Yurakaré subordinate constructions is determined by two broad types of inter-event coherence: participant integration and temporal integration. The interpretation of these two types of coherence differs for each functional type of subordinate clause (complementation, relative clauses, and adverbial clauses) as will be illustrated below, but in general terms, a subordinate construction iconically represents the degree of conceptual integration by its degree of grammatical integration between the two predicates or clauses. The remainder of this paper is devoted to the description and analysis of Yurakaré subordination strategies in terms of the concepts mentioned in this section.

3. Clause combinations in Yurakaré

Yurakaré has the following morphosyntactic subordination strategies:

1. Serial verb constructions:

(1) *nij poyde asisë-jti-Ø=w=ya*
NEG can touch-HAB-3=PL=REP
'They could not touch him.' (AR/M/01)

2. I will use the terms deranked and balanced clauses for clauses that contain a deranked or balanced verb form, respectively.

2. Deranked subordinate predicates, with subordination marker *=ya*:

(2) *sheche=w* *ma-pu=ya* *ta-ma-n-wewe-cha-m*
sweet.potato=PL 3PL-take.PL=IRR.SS 1PL-3PL-BEN-chew-JUS-2SG.S
'Take some sweet potatoes and chew them for us.' (OR/LM/04)

3. Deranked subordinate predicates, with subordination marker *=ja*:

(3) *së* *kayashi-lë=ja* *pa-mmuy* *kayashi-cha-p*
I shoot-RP=CE 2PL-all shoot-JUS-2PL.S
'Right after I shoot it, you all must shoot it.' (RY/NL/06)

4. Balanced subordinate predicates, with subordination marker *=ja*:

(4) *bali-tu=ja* *deche-tu* *yosse* *wowore*
go.PL-1PL.S=CE find-1PL.S again snake
'When we went away, we found the snake again.' (ER/NL/06)

5. Balanced subordinate predicates, with subordination marker *=ti*:

(5) *tëshshu* *amala-Ø=ti* *bobo-shti* *yosse*
opossum come-3=DE kill-FUT:1SG.S again
'When that opossum comes again, I'll kill it.' [MH/LM/04]

These five strategies can be summarized into three main groups, which will be discussed in subsequent paragraphs: serial verb constructions (Example 1, cf. Section 3.1), constructions containing a deranked predicate with a subordination marker (Examples 2 and 3, cf. Section 3.2), and constructions with a balanced predicate and a subordination marker (Examples 4–5, cf. 3.3).

3.1 Serial-verb constructions

Serial-verb constructions (SVCs) have generated a broad interest in the linguistic community, yet scholars often do not agree on their defining characteristics (cf. Senft 2007). This is, among other things, due to the enormous variety both within and between languages regarding serial-verb-like constructions. The definition that I will follow here comes from Payne (1997:307): "A serial-verb construction contains two or more verbs that are neither compounded, nor members of separate clauses." This definition is useful because on the one hand it sets SVCs apart from other phenomena like verb-verb compounding and clause chaining, and on the other it allows for variation between languages in how exactly SVCs differ from compounds and clause combinations.

SVCs in Yurakaré (always consisting of two verbs) have the following morphosyntactic characteristics:

i. the verbs are strictly adjacent and appear in a fixed order
ii. the rightmost verb is fully inflected, the left verb lacks subject agreement and temporal-modal[3] (T/M) marking
iii. there is no marker of subordination or coordination
iv. the construction is pronounced within a single intonation contour
v. both verbs have their own word stress
vi. both verbs of the serial-verb construction can take object prefixes
vii. the two verbs share a participant, at least one of them in subject function

Criteria (ii)–(iv) and (vii) classify these constructions as serial verb constructions according to the defining characteristics given in Aikhenvald (2006: 4–14) and Durie (1997: 291). Example (1) given above is a serial verb construction. The negation and the inflection apply to the construction as a whole, i.e. to both verbs; the leftmost verb is not inflected, but inherits the subject participant and T/M inflection from the rightmost verb. The two verbs, in other words, seem to form a morphological compound, as is shown in (6), a repetition of (1):

(6) *nij* *[poyde* *asisë]-jti-Ø=w=ya*
NEG can touch-HAB-3=PL=REP
'They could not touch him.' (AR/M/01)

However, apart from the fact that both verbs have their own lexical stress patterns, there are other indications that show that the compound is not as tight as a morphological compound. First of all, both verbs can have their own object participants:

(7) *pa-dayu* *pa-bata-y*
2PL-carry.on.back 2PL-go.INT-1SG.S
'I am going to take you on my back.' (AY/NC/02)

In the interpretation of the serial verb construction with the morphosyntactic analysis given in (6) we would not expect this to occur; we would rather expect one object-prefix position at the beginning of the compound. Therefore it is better to speak of a syntactic compound of two verb phrases (i.e. verb + complement) than of a morphological compound of two verbs.

SVCs are also different from clause combinations in Yurakaré in several respects. First, whereas the order of clause combinations is variable, this is not the case with SVCs (criterion i). Second, in clause combinations there is either a marker of subordination, or the verbs are both fully inflected, or both (criteria ii and iii). Finally, the two clauses in a clause-chaining construction normally each have their own intonation contour.

3. There is language-internal evidence that there is no reason to consider modality and tense as separate categories in Yurakaré (cf. Van Gijn & Gipper, 2009).

A final point to be made about SVCs in Yurakaré is that the two verbs are not required to have identical subjects. Consider the following examples (the SVCs are between square brackets):

(8) a. *puwa-tu=ja* *[nij* *ta-yle* *bali-tu]*
drunk-1PL.S=CE NEG 1PL-know walk-1PL.S
'When we were drunk we could not walk.' [MV/LM/04]

b. *[të-yle* *dula-shti=naja]* *pojore*
1SG-know do;make-FUT:1SG.S=DSC canoe
'I am going to learn how to make a canoe.' [MH/LM/04]

In example (8a), in the second part of the sentence, the negation is shared by both verbs, but the experiencer of the whole event is expressed twice: once as an object, once as a subject. Similarly in (8b), the future tense applies to the serial verb construction as a whole, as does the discontinuous marker, but the first person singular is expressed for both verbs (in different roles). This is because the verb *-(a)yle-* 'know' is an impersonal predicate, which encodes its experiencer as an object (in this case a direct comitative object). Apparently, if the experiencer/agent of the leftmost verb is not expressed as a subject, it has to be expressed morphologically.

The data in (7) and (8) suggest that we are dealing with the syntactic compounding of two verb phrases, which do not have equal morphosyntactic status: the rightmost verb seems to function as the head of the construction, since it carries the T/M information for the construction as a whole and, more importantly, it determines the subject inflection.

(9) $[[[VP]VP]\text{-}INFL]_{SVC}$

SVCs in Yurakaré are used to encode the following situation types: phasals (verbs denoting a phase of an event), modals & ability verbs (expressing the obligation or capacity to do something), and direct manipulatives (causative).

PHASALS:

(10) a. *ti-m-pëlë* *ense-shti*
1SG-BEN-finish drink-FUT.1SG.S
'I am going to stop drinking.' [RY/NL/06]

b. *tishilë* *ti-ja-n-toro* *rosa-shti*
now 1SG-3SG-BEN-terminate clear-FUT:1SG.S
'Now I am going to finish clearing [my plantation].' [FR/NL/06]

MODALS:
The verb *(i)ba* indicates ability. Depending on the case frame, it indicates whether the (lack of) ability is conditioned by external (11a) or internal (11b) factors.

(11) a. *nish ti-l-iba neta-y samu*
NEG 1SG-MAL-be.possible shoot-1SG.S jaguar
'I could not shoot the jaguar (because it was too quick).' [RY/NL/06]

b. *nish ti-m-ba neta-y samu*
NEG 1SG-BEN-be.possible shoot-1SG.S jaguar
'I could not shoot the jaguar (because I was too tired or clumsy).' [RY/NL/06]

The verb *-ayle-* 'know'[4] in the sense of 'know how to'[5] also takes an object experiencer; I have not found competing balancing structures with the meaning 'know how to'. There is a balancing construction involving *ayle* but then it has the meaning of 'to know that'.

(12) a. *të-yle dula-jti tomete*
1SG-know do;make-HAB:1SG.S arrow
'I know how to make arrows.' [HC/LM/04]

b. *ka-yle ka-n-dyërërë=naja sewwe*
3SG-know 3SG-BEN-speak-3=DSC child
'The child already knows how to speak.' [RF/LM/04]

c. *nish ta-yle an-wëshë-ti-tijti=la*
NEG 1PL-know R-hear-MID-HAB:1PL=CMT
'We could not understand each other.' (AR/M/01)

MANIPULATIVES:
Direct manipulatives consist of a fully inflected verb of causation *ibëbë*, which is shortened to *bë* when it carries person prefixes. The causer is encoded as a subject, the causee as a benefactive, with the exception of the third person singular, which is zero. The verb of effect does not carry any T/M or subject inflection:

(13) a. *bop-to ta-m-bë-Ø*
hit-MID 1PL-BEN-treat-3
'He made us fight.' [FP/LM/03]

b. *awëwë ti-m-bë-Ø*
cry 1SG-BEN-treat-3
'He made me cry.' [FA/LM/03]

c. *awëwë ibëbë-y*
cry treat-1SG.S
'I made him cry.' [FA/LM/03]

4. Literally the verb *ayle* means 'to familiarize, be familiar, tame'.

5. The verb a*yle* in the sense of 'to know that' takes a complement marked with *=ti* and the postposition *=la*. These constructions will be discussed below.

These three areas (phasals, modals and direct manipulatives) take up the leftmost positions in Cristofaro's (2003: 166) event integration hierarchy (i.e. they have the highest semantic integration):

phasals >
modals >
manipulatives ('make') >
purpose, manipulatives ('order'), desideratives, perception

According to Cristofaro, the characteristic that separates purpose, 'order' manipulatives, desideratives, and perception events from the rest is the fact that events or situations "representing the object of commands, desires, or acts of perception take place independently of these commands, desires, and acts of perception" (*ibid.*: 121).

The characteristic of strict dependency of phasals, modals, and direct causatives, allows for the fact that these complex events can be presented as an indivisible whole when it comes to temporal/modal reference: whatever tense/mode restrictions are valid for the rightmost verb hold for the leftmost verb as well. This is reflected by the single expression of tense/modality in SVCs, on the rightmost verb only. For modal predicates, there is an alternative way of expressing the complement. I will come back to this in Section 3.3.

With respect to another (related) dimension of event integration, participant integration, the three types of complement-taking predicates that can form a SVC with their complement have inherent participant overlap. In his typological study of complementation, Dixon (2006: 12–13) groups complement-taking verbs that express phasal or modal concepts together on the basis that they do not provide any addition to the semantic roles of the complement predicate. In other words: the participant of the modal or phasal event must resurface in the complement event. Make-manipulatives are of a different kind, in that the matrix verb is a two-participant event, but like phasals and modals, one of the participants in the causation event, namely the causee, is involved both in the manipulative event (as a patient) and in the event of effect (as the agent). Desideratives, as well as perception events, on the other hand, do not have an inherent overlap of participants.[6]

The grammatical reflection of participant overlap is the lack of a (normally obligatory) pronominal subject affix on the leftmost verb. This effect, however,

6. Purposives and order-manipulatives fall outside this consideration, as they are not complementational in nature in Yurakaré. Purposives are examples of adverbial clauses and as such they do not involve a complement-taking verb from a restricted set. Order-manipulatives are not examples of subordinate constructions either in Yurakaré. Speech act verbs cannot take indirect speech complements, they only combine with direct quotes.

is not always visible in serial verb constructions that function as a complementation strategy, because most matrix verbs are impersonal, and do not take a subject marker anyway. However, it can be observed in the construction involving the loanword *poyde*, and in *ibëbë* constructions. It can also be observed in non-complementational serial verb constructions, which can be described as completely simultaneous actions, carried out by one and the same person.

(14) a. *ajanta ashebu-m*
sing sew-2SG.S
'You are singing while you are sewing.' [JB/C/09]

b. *shëy arojo ateshe-m*
yesterday snore sleep-2SG.S
'Yesterday you were snoring while you slept.' [JB/C/09]

In these examples, the leftmost verb would normally require a subject marker, but in these SVCs they can do without, and are interpreted as coreferential. This semantic type of SVC fits with the ones described above in that the sub-events have shared time reference, as well as shared referents (although in this case not inherently).

In short, the serial verb construction can be used for complementation in which the dependent event does not occur independently of the matrix event, and in which the two sub-events inherently share a participant. This high degree of integration is grammatically reflected by the absence of tense/modal markers and subject reference morphology on the leftmost verb of the serial verb construction, as well as by the strict adjacency of the predicates.

3.2 Deranked clauses with a subordination marker

There are two types of clauses that fall into this category: deranked clauses marked with *=ya*, and deranked clauses marked with *=ja*. I will discuss these in turn, starting with *ya*-marked clauses.

Deranked clauses marked with the enclitic *=ya* denote irrealis background situations.[7] They have the following characteristics:

i. the *ya*-marked verb is deranked in that it does not take subject marking and has limited possibilities for T/M marking (it can only be marked for T/M relative to the main event).
ii. the main clause and the *ya* clause each have their own intonation contour.

7. The marker *=ya* also appears on fully inflected main clause verbs, in which case it usually indicates reportative.

iii. the dependent, *ya*-marked clause can either precede or follow the main clause, the order seems to be iconically motivated.
iv. the main verb is marked for an irrealis category, in Yurakaré these are intentional, hypothetical, desiderative, jussive, imperative, future tense, and habitual aspect.
v. the two predicates share their subject participants.

These clauses can encode the following three situation types:

A. Non-realized condition with same subjects:

(15) *lëtëmë=ij wita=ya a-nënë-cha-m*
jungle=DIR arrive.SG=IRR.SS PRG-cook-JUS-2SG.S
'When you arrive at the jungle, cook.' [MH-24MA-6]

B. Irrealis coordination with same subjects:

(16) a. *lëtëmë=chi mala-m=ti*
jungle=DIR go.SG-2SG.S=DE
mi-n-nënë=ya mi-n-tütü-shti
2SG-BEN-cook=IRR.SS 2SG-BEN-sit;be-FUT:1SG.S
'While you go to the jungle, I'll cook and wait for you.' [MV/LM/04]

b. *kummë otto-Ø=ti aramba=ya*
tree go.out-3=DE break.off=IRR.SS
ana-ja-lë ti-ja-mal-cha-m
DEM-MEA-AMP 1SG-3SG-go.SG-JUS-2SG.S
'If a tree has come out, break off a piece and bring it to me.' (OR/LM/04)

C. Purposive clauses with same subjects:

(17) a. *bata-y sama=chi ajuyja-ni-shta=ya*
go.INT[8]-1SG.S water=DIR fish-INT-FUT=IRR.SS
'I am going to the river to fish.' [HC/LM/04]

b. *duche-shti ayma nënë-shta=ya*
light-FUT:1SG.S fire cook-FUT=IRR.SS
'I will light a fire to cook.' [MV/LM/04]

c. *ti-ayma duche=ya nënë-shti*
1SG-fire light=IRR.SS cook-FUT:1SG.S
'I will light the fire to cook.' [RF/LM/04]

The *ya-clause* is dependent on the main clause in that it inherits the subject and the T/M information from the main verb. For instance, in (16a), the *ya*-marked verb

8. The verb *bata* is inherently intentional, therefore it does not need to carry irrealis inflection.

nënë 'cook' is interpreted as future tense and with a first person singular subject, because the main verb is inflected for these categories. In (17a) and (17b) we see that a *ya*-marked verb can carry the future marker, but only to position the event as later relative to the main event: I term this dependent time reference. Compared to SVCs, which had shared time reference, this construction is a step closer to a situation with two independent events.

This type of construction can only be realized when two criteria are met: (a) the subjects of the *ya*-clause and the main clause are the same, and (b) the main verb is inflected with a marker indicating that the verb depicts a state of affairs that is not yet realized. These markers are intentional, desiderative, hypothetical, jussive, imperative, future tense or habitual.

Conceptually, the events in this construction are 'twin-events', first of all in the sense that there is a clear connection between the occurrence of both events: one of the verbs is preparatory for the other, or it indicates the circumstances in which the other event can take place. Second, they are twin events in time, in the sense that if one event moves up in time, so does the other, even though they represent non-simultaneous moments in time. The conceptually dependent event is not necessarily the grammatically dependent event. For instance in (17b), the main predicate is the anchor, the grammatically subordinate event is dependent on the main event for its occurrence and temporal interpretation; in (17b) it is the other way round.

Another peculiarity of the system in Yurakaré is shown in example (16a), where the construction *minnënëya mintüshti* 'I will cook and wait for you', is dependent on another event, namely *lëtëmëchi malamti* 'when you go to the jungle'. However, this conditional sentence does not have the reduced morphology and the marker *=ya*. This has to do with the fact that the subject of *lëtëmëchi malamti*, is different from the subject of the main clause. I will come back to this issue in Section 3.3 below. For a more in-depth analysis of the *ya*-construction, see van Gijn & Gipper (2009).

A slightly different type of deranked subordinate clause is marked with *=ja*:

(18) *lëtëmë=ij* *mala=ja* *ti-n-ujwa-cha-m* *ti-tib* *chajmu*
jungle=DIR go.SG=CE 1SG-BEN-look.at-JUS-2SG.S 1SG-pet dog
'While I go to the jungle, you take care of my dog for me.' [VL/LM/04]

The construction given in (18) occurs under the following conditions:

The dependent clause

a. has the speaker (first person) as its understood subject
b. refers to a non-realized event

The main clause

a. has the hearer (second person) as its grammatical subject
b. refers to a state of affairs desired by the speaker (in the form of an order or request)

The dependent verb in (18) is deranked because it is not inflected for subject or T/M. In this sense, and also because reference is made to an irrealis situation, the construction is reminiscent of the constructions with uninflected *ya*-clauses discussed above in this section that refer to unrealized conditional situations (usage A). As in *ya*-clauses, the time reference of the subordinate event is dependent on that of the main event. The difference, however, is that the main and subordinate clause have different subjects associated with them. As will be discussed in the next section, conditional clauses with two different subjects are normally balanced, and marked with *=ti*, for 'discontinued event', whereas the marker *=ja* on a balanced verb is reserved to mark participant continuation in temporal relations. The fact that, even though the subjects are different, the marker *=ja* appears, has to do with the condition that the subject is the speaker, and the main event an order or request, marked by either the jussive, as in (18), the imperative, and occasionally the future tense marker. The jussive and the imperative inherently involve the speaker as the source, which means that, in a way, the speaker is present in the main clause as well, as a distant controller. This might explain the fact that *=ja* is used here rather than *=ti*. The fact that the subject of the main clause is restricted to addressees may have to do with the semantics of imperatives and jussives. Imperatives in Yurakaré can only be directed to an addressee. Jussives can also be directed to third persons, but then the interpretation is a wish or hope of the speaker, not a request or command. On the other hand, the sub-events in a construction like (18) are more independent than the constructions with the marker *=ya*, because the two sub-events have different direct controllers.

This construction, then, presents a situation where T/M reference of the subordinate clause is dependent on the main clause (like with the deranked *ya*-clauses), but also a situation that is intermediate between same-subject and different-subject clauses, in that the understood subject of the subordinate clause is also present as a semi-controller in the main clause.

3.3 Balanced clauses with a subordination marker

The third and last broad type of subordinate construction in Yurakaré is characterized on the one hand by the fact that both the matrix verb and the subordinate verb can carry TAM and pronominal subject markers. They do not, however, take evidential markers, speaker-commitment markers, interactional markers and

situational aspect markers. This type of clause is furthermore characterized by a switch-reference system that is sensitive to event continuation, indicated by the enclitics *=ja* 'continued event' or *=ti* 'discontinued event' on the subordinate verb.

Haiman & Munro (1983: ix) define canonical switch reference as "an inflectional category of the verb, which indicates whether or not its subject is identical with the subject of some other verb". The switch-reference system in Yurakaré is only partly concerned with the identity of subjects between two clauses, and more with event (dis)continuation in general, of which subject identity is only one aspect (cf. Stirling 1993 for a discussion of switch reference as a grammatical device for marking event (dis)continuation). The interpretation of event (dis)continuation in Yurakaré, and thereby the conditioning factors for the appearance of *=ja* or *=ti* depends on the type of subordinate clause. I will first discuss adverbial clauses before going on to relative clauses and complement clauses.

For temporal adverbial clauses, the opposition between *=ja* and *=ti* is based on the identity of the subjects of the main and subordinate clause, just like in the classical conception of switch reference: if the subjects are identical, the marker *=ja* is used, if they are different, *=ti* is used.

(19) a. *ti-bëjta-Ø=ja ti-la-mala-Ø samu*
1SG-see-3=CE 1SG-MAL-go.SG-3 jaguar
'When the jaguar$_i$ saw me, it$_i$ ran away from me.' [MH/LM/04]

b. *së bëjta-y=ti ti-la-mala-Ø samu*
1SG.PRN see-1SG.S=DE 1SG-MAL-GO.SG-3 jaguar
'When I saw the jaguar, it ran away from me.' [RF/LM/04]

The interpretation of balanced *ja*-clauses is restricted to realis temporal relations, *ti*-clauses can also be interpreted as conditional clauses or irrealis temporal clauses (which are covered by deranked *ya*-clauses for same subject):

(20) *tëshshu amala-Ø=ti bobo-shti yosse*
opossum come-3=DE kill-FUT:1SG.S again
'When/if that opossum comes again, I'll kill it.' [MH/LM/04]

So there is a slightly different system for temporal adverbial clauses and conditional adverbial clauses, which can be represented as in Table 1:

Table 1. The Yurakaré switch-reference markers

	SS	DS
Temporal	=ja	=ti
Conditional	=ya	=ti

Ti-clauses can receive other adverbial interpretations as well if they carry a postpositional enclitic. *Ti*-clauses can be marked by four postpositions: *=la* 'instrument', *=jsha* 'ablative', *=chi* 'direction', and *=y* 'locative'. The first two postpositions are used to form reason and concessive clauses, respectively. The last three (with the ablative in a double role) are used to form different kinds of locative clauses. Whenever dependent clauses carry one of these four postpositional markers, they are always marked with the enclitic *=ti*, preceding the postpositions, irrespective of whether the subject of the dependent clause is the same or different from the subject of the main predicate. Locative clauses are furthermore marked with the delimiting prefix *li-*. This is illustrated by four examples of clause chains with same subjects that carry the marker *=ti* as well as a postposition:

(21) a. *alista-y* *ti-tomte* *lëtëmë=chi* *bati=ti=la*
prepare-1SG.S 1SG-arrow jungle=DIR go.INT:1SG.S=DE=INS
'I prepared my arrows because I will go to the jungle.' [MV/LM/04]

b. *awëwë-m=ti=jsha* *të-dyërërë-m*
cry-2SG.S=DE=ABL 1SG.VCO-CONVERSE-2SG.S
'Although you were crying you conversed with me.' [MV/LM/04]

c. *bata-tu* *li-sawata-tu=t=chi* *shinama*
go.INT-1PL.S DEL-work-1PL.S=DE=DIR before
We go to were we worked before.' [AM/TM/07]

d. *tishilë* *wili-shti* *li-winani=ti* *shinama*
now go.back-FUT:1SG.S DEL-walk:1SG.S=DE:LOC before
'I'll go back to where I lived before.' [AM/TM/07]

There are two possible answers to the fact that, even if the subjects are the same, the enclitic *=ti* appears in these constructions. One is a structural one: since postpositional enclitics need a nominal element to attach to, we might say that *=ti* has nominal qualities, whereas *=ja* does not, so that in order for a postposition to attach to a verbal element, the enclitic *=ti* is needed for its nominal qualities. This analysis is corroborated by the fact that the most likely candidate for the etymological source of the enclitic *=ti* is the demonstrative *ati*.

Another answer, more in line with the general argumentation of this paper, involves the distance between the two events that determines the appearance of *=ti*. In this view, instances of clauses marked with *=ti* and a postpositional enclitic denote events that are not part of the same spatio-temporal context. The subordinate clauses in (21) are not interpreted as temporally sequential events belonging to the same situational context, which overrides subject continuation. Subordinate events marked with *=ja* are also separated from the main event, but they are still

part of the situational context. They mark events that are terminated at the point where the main event is carried out:[9]

(22) *pënchi* *kuymaluma-Ø=ja* *ash=ta-Ø=ya* *na* *pëpë-shama*
long.time think-3=CE like.this=say-3=REP DEM grandfather-FMR
'After he had thought for a long time, the old man said this.' (OR/LM/04)

The two events here are presented as a contiguous succession, which is always the case with subordinate clauses marked with *=ja*. In that sense, both events form part of the same overall situation.

This analysis is supported by the (rare) temporal interpretation of *=ti=jsha*, which denotes succession, but with an intervening time span:

(23) *peta* *bali-Ø=w=ti=jsha* *ma-che-Ø=ya* *ati*
lie.PL go.PL-3=PL=DE=ABL 3PL-eat-3=REP DEM
ta-ppë-shama=w *ayma*
1PL-grandfather-FMR=PL fire
'Long after they had dropped down all around, the fire burned (lit. ate) our ancestors.' (AY/NC/02)

It remains to be seen which analysis of the *ti*-marked postpositional clauses is preferable. There is evidence for both, and they may also both be true. For the purposes of this paper, however, I will pursue the second analysis given above, and show that it fits with the more general organizational principles of clause combinations in Yurakaré based on event integration.

Relative clauses function in a slightly different way, although they are also sensitive to the *=ja* versus *=ti* distinction. Consider the following relative clauses, which have relativized object participants, but which have identical subjects as the main clause verb:

(24) a. *lulë-ni* *na* *yutiche* *bobo-y=ti*
pluck-INT:1SG.S DEM mutún hit;kill-1SG.S=DE
'I am going to pluck the mutún bird that I killed.' [AM/TM/07]

b. *li-ujwa-ni-shti* *na* *shunñe* *bëjti=ti* *shëy*
DEL-look.at-INT-FUT:1SG.S DEM man see:1SG=DE yesterday
'I am going to visit the man I saw yesterday.' [RA/TM/07]

c. *bëbi* *na* *shunñe* *na* *podejpo* *ku-peresti=ti*
search:1SG.S DEM man DEM money 3SG.VCO-lend:1SG.S=DE
'I am looking for the man to whom I lent money.' [VL/LM/04]

9. This is not to say that *=ti* clauses cannot have this interpretation, it is only then that subject continuation becomes important.

Compare this to these same-subject relative clauses, where the subject of the main clause is coreferent with the relativized argument of the relative clause:

(25) a. *dele-Ø na shunñe danda-Ø=ja kummë=la*
fall.SG-3 DEM man go.up-3=CE tree=INS
'The man that climbed up the tree fell.' [AM/TM/07]

b. *latijsha yoj ku-ta-Ø=ya na yee mujushi-pshë*
then okay 3SG.VCO-say-3=REP DEM woman pregnant-entity
'Then the woman who was pregnant said "OK" to him.' (AR/M/01)

There are two strategies for these kinds of same-subject relative clauses. One is with the marker *=ja*, as in (25a), which alternatively translates as 'when the man climbed in the tree, he fell'. The second strategy is exemplified in (25b), where the predicate *mujushi* 'be pregnant' forms the first part of a composition with *bëshë* 'entity', which in this case translates as 'the one who X'.

Same-subject relative clauses that have a non-subject relativized are always marked with *=ti*, as is illustrated in (24). Keenan (1974: 298–299) argues that subjects of simplex declarative sentences and heads of restrictive relative clauses[10] have in common that they are both arguments of a function: the predicate phrase being a function of the subject and the relative clause being a function of the head of that clause. In my view this translates to thematicity or topicality. The subject is (canonically) what the predicate is about, the head of a relative clause is what the relative clause is about.

Seen in this light, we might consider examples such as the ones given in (24) as instances of discontinuity, not of the subject participant, but of the theme, or topic of the predication. So for instance, example (24a) has the subject 'I', indicated on the verb as a theme for the main clause and *na yutiche* "the mutun bird" for the relative clause. Similarly, (24b) has 'I' as the theme for the main clause and *na shunñe* 'the man' for the relative clause. Example (24c), finally also has the themes 'I' for the main clause and *na shunñe* 'the man' for the relative clause.

In complementation, finally, the *=ja* versus *=ti* distinction works out in yet another way. Modal and ability verbs, which can be represented by a serial verb construction, have an alternative way of expression, by means of a balanced clause marked with *-ni* ('intentional' in main clauses), subject inflection, and *=ti*. Consider two contrastive examples for the verb *iba* 'be able':

10. Keenan also mentions possessive constructions in this respect, but that need not concern us here.

(26) a. *nij* *ti-m-ba* *chittu-shti* *samma*
NEG 1SG-BEN-be.possible cross-FUT:1SG.S water
'I will not be able to cross the water.' [FR/NL/06]

b. *nij* *ti-m-ba-shta* *chittu-ni=ti* *samma*
NEG 1SG-BEN-be.possible-FUT cross-INT:1SG.S=DE water
'It will not be possible for me that I cross the water.' [FR/NL/06]

As can be seen in (26b), in a construction involving a balanced *-ni=ti* clause, the matrix verb can be marked for time reference. The dependent clause in (26b) can be regarded as a subjunctive. Subjunctive complements go with certain verbs, like modal/ability, desiderative and liking verbs. All of these complements carry the marker *=ti*, even if the subjects are identical:

(27) *nish* *poydi=la* *ma-alkansa-ni=ti*
NEG can:1SG.S=CMT 3PL-reach-INT:1SG.S=DE
'I could not reach them.' (AR/NC/02)

The reason for this is that in this representation of the complex event, there is temporal discontinuation. The complement is a presupposed event which is not realized at the same time as the main event, the events are not on the same time line.

Compare this to the complement of *bëjta* 'see', first with different subjects, then with same subjects:

(28) a. *ayajta* *mala-m=ti* *mi-bëjta-y*
fast go.SG-2SG.S=DE 2SG-see-1SG.S
'I saw you running.' [RF/LM/04]

b. *bëjta-ta-y* *ti-manchijsha* *ti-buybu* *ka-n-dyuju-y=ja*
see-MID-1SG.S 1SG-self 1SG-language 3SG-BEN-inform-1SG.S=CE
'I saw myself teaching my language (on video).' [RY/TR/09]

The ja/ti distinction for complementation, then, is determined in the first place by the presupposed-factual distinction (a specific instance of temporal integration) and only secondarily by participant continuation (only for factual complements).

4. Conceptual integration and clause integration

The idea defended in this paper is that the degree of semantic integration of two events is reflected by the degree of grammatical integration of the two predicates encoding the events. This is an instance of the more general functional principle of iconicity (Haiman 1985), which can be described as the phenomenon that semantic relations are reflected in the formal patterns by which they are realized.

This general idea can be translated to the area of clause combinations as follows: "The stronger the semantic bond between two events, the more extensive will be the syntactic integration of the two clauses into a single, though complex clause" (Givón 2001[2]: 40). The morphosyntactic encoding of the degree of semantic integration can take the following shapes (ibid.: 59–60):

Syntactic coding of clause union:

A. co-lexicalization
   The higher a verb is on the semantic-cognitive scale of event integration, the more likely it is to co-lexicalize with its complement verb.
B. case marking and grammatical relations
   The more integrated the two events in the main and complement clauses are, the less likely it is for the subject of the complement clause to receive prototypical agent case-marking.
C. finite verb morphology
   The more integrated the main and subordinate events are cognitively-semantically, the more nominal – thus less finite – will the subordinate verb appear morphologically.
D. subordinating morphemes
   The less integrated the main and subordinate events are cognitively-semantically, the more likely it is that a subordinating morpheme be used to separate the two clauses.

Of these four morphosyntactic strategies, numbers A, C, and D are of importance for Yurakaré. Serial verb constructions are instances of co-lexicalization (A); lack of finite verb morphology (C) is found in deranked *ya*-clauses and deranked *ja*-clauses; finally, there are three markers that can be seen as 'separators' of the two events: *=ya*, *=ja*, and *=ti* (D). The distinction between balanced clauses with *=ja* and *=ti* cannot inherently be linked to a difference in the degree of grammatical integration (both are equally integrated), and the same is true for the difference between deranked *ya*-clauses and deranked *ja*-clauses. However, it has been noted (Givón 2001[2]: 72) that languages can make use of diverse subordinators to enrich a scale of clause integration.

The morphosyntactic types of clause combinations found in Yurakaré are sensitive to the degree of conceptual integration of events. The relevant components of event integration are participant continuity and temporal integration. However, the aspects of participant continuity and temporal integration that are important for explaining the morphosyntactic encoding, differ per type of complex clause. I will first discuss temporal integration, and then participant continuity separately, before discussing how they interact.

Differences in temporal integration can be explained with reference to the following examples, repetitions of examples (1), (2), (4), and (23) given above:

(29) *nij poyde asisë-jti-Ø=w=ya*
NEG can touch-HAB-3=PL=REP
'They could not touch him.' (AR/M/01)

(30) *sheche=w ma-pu=ya ta-ma-n-wewe-cha-m*
sweet.potato=PL 3PL-take.PL=IRR.SS 1PL-3PL-BEN-chew-JUS-2SG.S
'Take some sweet potatoes and chew them for us.' (OR/LM/04)

(31) *bali-tu=ja deche-tu yosse wowore*
go.PL-1PL.S=CE find-1PL.S again snake
'When we went away, we found the snake again.' (ER/NL/06)

(32) *peta bali-Ø=w=ti=jsha ma-che-Ø=ya ati*
lie.PL go.PL-3=PL=DE=ABL 3PL-eat-3=REP DEM
ta-ppë-shama=w ayma
1PL-grandfather-FMR=PL fire
'Long after they had fallen spread around, the fire burned (lit. ate) our ancestors.' (AY/NC/02)

The examples (29)–(32) can be read as a continuum going from temporally highly integrated (fused) events in (29) to temporally disconnected events in (32). The predicates in (29), exemplifying a serial verb construction, have shared time reference, i.e. they have exactly the same T/M characteristics, occurring at the same time, starting and ending simultaneously, etc. Deranked *ya*-clauses, exemplified in (30) have two predicates that represent two distinct events, where one depends on the other for its positioning in time. This is not the case for the predicates in (31), which represent temporally independent clauses, which are nevertheless connected through a pivotal point in time. The temporal reference points of balanced *ja*-clause and the main clause are relative to this independent pivotal time-reference point: the event encoded by balanced *ja*-clauses is completed at the moment of the reference point, the event of the main clause starts or is ongoing at that point. This can be shown by the following example:

(33) *a-ushpë-shti=ja li-dele-y sama=chi*
PRG-bathe-FUT:1SG.S=CE DEL-fall.SG-1SG.S water=DIR
'When I was going to bathe, I fell into the water.' [RF/LM/04]

The presence of the enclitic *=ja* on the balanced, subordinate predicate forces the interpretation of the future marker as a kind of inchoative marker, because of the perfective aspect associated with the subordinator. Compare this to example (17b),

repeated here, where a *ya*-marked clause is marked for future tense, and where the interpretation of the future marker of the subordinate event is relative to the main event:

(34) *duche-shti* *ayma* *nënë-shta=ya*
light-FUT:1SG.S fire cook-FUT=REP
'I will light a fire in order to cook.' [MV/LM/04]

Events expressed in a *ja*-clause construction, therefore, are temporally independent, but temporally connected through a pivotal time reference point.

The least temporally integrated complex clause construction is given in (32), where the events are temporally disconnected by an intervening period of time. The temporal disconnection is also applied to subordinate clauses which do not bear a relation of temporal sequence to the main event at all, such as concessives, reason clauses and locative clauses. A similar argument can made for subjunctive complement clauses. The matrix event occurs at a certain moment in time, but the subjunctive event is not temporally linked to that moment, but rather presented as a potentiality.

The four levels of temporal integration that have impact on the structure of clause combinations are the following:

(35)

temporal integration	*linguistic structure*
temporally fused	SVC
temporally dependent	deranked *ya*-clauses
temporally connected	*ja*-clauses (and *ti*-clauses)
temporally disconnected	*ti*-clauses

The other dimension that is important for structural subordination patterns Yurakaré is participant continuity. There are three types of participant continuity: subject continuity, implicit controller continuity, and thematic continuity. Serial verb constructions present two fused events where there is inherent participant overlap, but whether there is subject continuity or discontinuity is irrelevant, as there is a single, complex event:

(36) ***ti***-*m-pëlë* *ma-ense-shta-y* *yarru*
1SG-BEN-finished 3PL-drink-FUT-1**SG**.S chicha
'I am going to stop drinking chicha.' [RY/NL/06]

For temporally dependent and temporally connected events the dimension of subject (dis)continuity *is* of importance. If subjects are not identical in these contexts, a balanced, *ti*-marked clause is required. This was illustrated for temporally connected clauses in (19a) and (19b), and it is shown here for dependent time reference clauses:

(37) a. *lëtëmë=yj* *wita=ya* *a-nënë-cha-m*
jungle=DIR arrive.SG=IRR.SS PRG-cook-JUS-2SG.S
'When you arrive at the jungle, cook.' [MH/LM/04]

b. *lëtëmë=yj* *mala-m-ti* *a-nënë-ni*
jungle=DIR go.SG-2SG.S=DE PRG-cook-INT:1SG.S
'When you go to the jungle, I will cook.' [MH/LM/04]

Both (37a) and (37b) are examples of subordinate clauses with dependent time reference. However, there is subject continuation in (37a), while there is subject discontinuation in (37b). Apparently, for clause combinations with participant discontinuity, the difference between dependent and independent time reference is ignored.

For temporally dependent clauses, there seems to be a third, intermediate level of participant continuity, for which a number of specific criteria have to be met (this was discussed in Section 3.2):

(38) *lëtëmë=ij* *mala=ja* *ti-n-ujwa-cha-m* *ti-tib* *chajmu*
jungle=DIR go.SG=CE 1SG-BEN-look-JUS-2SG.S 1SG-pet dog
'While I go to the jungle, you take care of my dog for me.' [VL/LM/04]

I will term this intermediate level implicit participant continuity, as the speaker is implicitly present in the main event.

For relative clauses, finally, there is also a specific interpretation for participant continuity, based on the identity of the subject of the main clause and the relativized argument of the relative clause. If these are identical, the relative clause is either marked with the lexical nominalizer *-pshë* or with *=ja* (see discussion in 3.3).

The different interpretations of participant (dis)continuity can be subsumed under the heading of perspective, in the sense of the point of view from which a situation is presented. Dik (1997: 247–269) regards the grammatical subject as having a perspectivizing function, and operations such as passivization and causativization as perspective-shifting. In Yurakaré clause combinations, perspective does not always coincide with subject (although it often does), but also – under specific circumstances – with (implicit) controller or with theme, which have functional overlap with subject.

Table 2 combines the two components of event integration discussed above and relates them to the different subordination strategies in Yurakaré:

Table 2. Subordination strategies and event integration

	Perspective continuation		**Perspective shift**
Temporally fused	SVC		
Temporally dependent	ya	ja (der)	ti
Temporally connected	ja		ti
Temporally disconnected	ti		ti

The two dimensions interact in such a way that neither can be held responsible by itself for the structural patterns found. The dimension of perspective (dis)continuity is irrelevant for temporally fused events, because these are considered as constituting a single event, with a single perspective. Perspective (dis)continuity is relevant to both temporally dependent and temporally connected events. There is even a two-way split between explicit (subject) and implicit (controller) perspective continuation for temporally dependent events. When there is a perspective shift, however, the degree of temporal integration becomes irrelevant; the same can be said for perspective (dis)continuity in the case of temporally disconnected events.

5. Conclusion

The structural type of subordination in Yurakaré is determined by the degree of integration between the events depicted by the predicates in the complex clause construction. There are two criteria to measure event integration: temporal integration and participant continuity. There are four levels of temporal integration: fused, dependent, connected, and disconnected temporal reference; there are also three types of participant continuity: subject continuity, implicit controller continuity, and theme continuity. These three types do not so much form a scale of the degree of participant integration, but rather seem to be different instantiations of perspective (dis)continuation.

These two dimensions of event integration interact in such a way that neither of them is dominant over the other in explaining linguistic structure. For temporally fused events the notion of participant (dis)continuation is irrelevant; for events with participant discontinuity, the dimension of temporal integration is ignored; for temporally disconnected events, the dimension of participant (dis)continuation is overridden.

Apart from these cognitive determinants, syntactic information is also relevant, as the precise interpretation of participant continuation and temporal disconnection differs per clause type. Participant continuation can be implicit for dependent time reference clauses (a continuation of first person controller), and sensitive to theme for relative clauses. Temporal discontinuity for complement clauses hinges on the presupposed-factual distinction; for relative clauses the dimension of temporal discontinuity does not seem to play a role, and for adverbial clauses, finally, it is related to direct sequence and the distinction between temporal versus logical relations.

The Yurakaré data presented in this paper confirm the general idea of iconicity, especially defended within functional and cognitive approaches to language: the

tighter the two events are linked cognitively, the tighter the morphosyntactic bond between them.

Abbreviations

ABL	ablative
AMP	amplifier
BEN	benefactive
CE	continued event
CMT	commitment
DE	discontinued event
DEL	delimiter
DEM	demonstrative
DIR	direction
DSC	discontinuative
FMR	former
FUT	future tense
HAB	habitual
INS	instrument
INT	intentional
IRR	irrealis
JUS	jussive
LOC	locative
MAL	malefactive
MEA	measure
MID	middle voice
NEG	negative
PL	plural
PRG	progressive
PRN	pronoun
R	reflexive/reciprocal
REP	reportative
RP	recent perfective
S	subject
SG	singular
SS	Same subject
VCO	voluntary comitative

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Subordination in Cholón

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In Cholón, an indigenous language from northern Peru, subordinate clauses are formed by means of nominalizers or subordinators. Most of these markers attach to reduced verb forms, but some nominalizers are attached to a fully inflected form. Nominalizers can be followed by a case marker or by a combination of case markers. This paper deals with the different subordinate clauses found in the data gathered by Fray Pedro de la Mata in the 18th century, and it discusses how they are formed, in particular with respect to the employment of subordinating and nominalizing suffixes and of case markers.

1. Introduction

The now extinct Cholón language was spoken in North-Peru, in the valley of the Huallaga River, an affluent of the Marañón (Amazon). Solís Fonseca (1987) and Fabre (1994) mention only two remaining speakers at the time of their fieldwork. According to my information, the last speaker of Cholón, Mrs.Victoria Cerquera Ojeda, passed away in 1993. (For more information about the speakers of Cholón and their habitat, see Alexander-Bakkerus 2005: 33–40).

Cholón, a member of the Cholonan language family (Híbito being the other member) is an agglutinative language. Nominal stems and verb stems can be accompanied by both prefixes and suffixes. Person markers are mainly prefixed, categories like case markers, nominalizers and subordinators, for instance, are suffixed. Nouns and verbs are the most important word classes; Cholón furthermore has a closed class of 29 adverbs and 21 interjections, but no adjectives. The language distinguishes gender for the second person singular: *mi* for masculine, *pi* for feminine. The order of the constituents is predominantly SOV.

The data in this paper are taken from Alexander-Bakkerus (2005), a description of Cholón based on a transcription of the *Arte de la Lengua Cholona*. The *Arte de la Lengua Cholona* is a colonial grammar written in 1748 by a Franciscan friar, named Pedro de la Mata (see Alexander-Bakkerus, 2007). For an earlier brief sketch of Cholón, cf. Muysken (2004: 460–75).

In Cholón, subordinate clauses are formed by means of nominalizing and subordinating suffixes; nominalized and subordinate verb forms can function as

subordinate clauses. Section 2 gives an analysis of the structure of verb forms in independent clauses. Section 3 deals with different subordinate clauses. In conclusion, Section 4 presents a synoptic survey of the different subordinate clauses and their components.

2. Stems, prefixes, and suffixes

As already stated, verb stems can be accompanied by both prefixes and suffixes. Personal reference markers are prefixed, except for the second person plural marker *-ha* and the third person plural agent marker *-la*, which are suffixed. Elements such as tense, aspect, and mood (TAM) markers, stem extenders, derivational morphemes, and bound verbs are also suffixed. Stems, including derived stems, formed by means of a derivational suffix, and complex stems, formed by means of a bound verb, can be reduced and extended. A simplified template of the Cholón verb looks as follows: person marking – ROOT – bound verbs – derivation – TAM. I will discuss each of these functional categories of the verb, and finish the section with an excursus on copulas.

2.1 Simple stems

The majority of the verb stems can be reduced, by means of vowel and consonant suppression. Reduction regularly occurs when the stem is followed by the imperfective aspect marker *-aŋ*, the stem extension and past tense markers *-iy* and *-ey*, the derivational suffix *-keh*, and the subordinator *-eč*. Verbs with a reducible stem can be divided into five classes:

1. verbs like *kot* 'be', with vowel internal suppression;
2. verbs ending in *h*, like *kiah* 'wait', which can drop the ending;
3. verbs like *kole*, with a reduced palatalized stem: *kol^{y}*.
4. verbs ending in *a*, like *lama* 'kill', which can omit *a*;
5. verbs ending in *o*, like *peño* 'want', which can also drop the last segment.

In this text, the reducible stems are not indicated separately; for full details, cf. Alexander-Bakkerus (2005).

2.2 Complex stems

A complex stem consists of the stem of a simple verb + the stem of a bound verb. (We here disregard complex stems with incorporated nouns). Bound verbs are verbs that are used in combination with other verbs. In complex stems, only the

bound verb stem can undergo reduction. It is suffixed to a non-reduced stem. Most of the bound stems are reducible. In the data the following bound verbs occur (the verbs *-pale-kiah* 'pace up and down', *-lʸukoh* 'have finished' and *-pul* meaning 'to be satisfied' also occur as non-bound verbs; the other verbs only appear as bound verbs):

-čeh	'wander'	*-pale-kiah*	'pace up and down'
-pitˢ	'pass by'	*-čupo*	'do tenderly'
-koloh	'finish'	*-lʸukoh*	'have finished'
-mulo	'begin'	*-pul*	'rest from'
-šipe (<**šipeh*?)	'break off'		

The form *-pale-kiah*, consisting of a bound stem, *-pale*, and a derivational suffix, *-kiah*, shows that a bound verb can be followed by a derivational suffix.

The structure of an intransitive first/second/third person singular verb form with a bound verb is as follows:

S – non-reduced stem – (reduced) bound stem – TAM:

(1) *a-tˢač-pitˢ-aŋ*
1SA-3SO.see-pass.by-IA
'I see it while passing by.'

2.3 Derivation

Simple and complex stems can be followed by the following derivational suffixes: *-itˢ* 'passive', *-kah* 'causative', *-keh* 'causative', *-kiah* 'iterative', *-no* 'reflexive', *-pe* 'negative.' The derivational suffixes, except for the suffix *-keh* (see Section 1.1.2), are attached to a non-reduced stem. Causative *-kah* causativizes a transitive stem, *-keh* an intransitive stem. Passive and reflexive stems are intransitive. Derived stems are reducible, except for the derived passive stem ending in *-itˢ*.

An intransitive first/second/third person singular form with a bound verb, followed by a derivational suffix, has the following structure:

S – non-reduced bound stem – (reduced) derived stem-TAM

2.4 Person marking

Subject, agent and object are generally marked on the verb. They are regularly marked by the following affixes:

a-	'1SS/A/O'	*mi-…-ha*	'2PS/A/O'	*i-*	'3SA'
mi-	'2SMS/A/O'	*ŋo-*	'3SS/A/O'	*či-/i-*	'3PS'
pi-	'2SFS/A/O'	*Ø-*	'3SS/O'	*-la*	'3PA'
ki-	'1PS/A/O'	*l-/_V*	'3SS/O'	*po-*	'3PO'

However, in two cases subject and agent agreement is optional:

i. in second person singular imperative forms: cf. *kot* 'Be!' ~ ***mi**-kot-i* 'Be!';
ii. in subordinate forms ending in *-nap* when the subjects of the main verb and the subordinate verb are identical: cf. Example 53, where subject/agent agreement is left out, and Example 54, with subject/agent agreement.

In one case, subject/agent agreement is always omitted: in subordinate forms ending in *-khe* when the subject of the main verb and that of the subordinate verb is the same person, see Examples 31 and 41.

Agent marking precedes object marking: A-O-stem-TAM. A third person singular subject and object can also be indicated by means of stem alternation (*#p* > *#m*, *#k* > *#ŋ*, *#y* > *#t^{s}*, *#h* > *#s*). The structure of a third person intransitive form and that of a transitive form may then be as follows: alternated stem-TAM, and A-alternated stem-TAM, respectively. Regularly, the personal reference markers *-ha* '2P' and *-la* '3PA' are directly attached to the verb stem:

2P: *mi*-(O-)stem-*ha*-TAM/*mi*-alternated stem-*ha*-TAM;
3PA: O-stem-*la*-TAM/alternated stem-*la*-TAM.

In imperfective aspect forms, however, *-ha* and *-la* are suffixed to a stem extender, and in past tense forms, to a past tense marker (in the structure examples below, stem alternation is disregarded):

	2P	3PA
imperfective aspect	*mi*-(O-)stem-SE-*ha*-IA	O-stem-SE-*la*-IA
past tense	*mi*-(O-)stem-PA-*ha*	O-stem-PA-*la*

2.5 TAM

Cholón has two past tense markers: *-iy*/*-w* and *-ey*, one future marker: *-kte*, one aspect marker: *-aŋ*, and two imperative markers: *-ki* and *-khe*.

The past tense marker *-iy* occurs after a reduced stem of a verb of class 1, 2, 3, and 4; *-w* after a non-reduced stem of a class 5 verb; and *-ey* after a reduced stem of a verb of class 1 and 2. A past tense marked with *-ey* is followed by the imperfective aspect marker *-aŋ*:

(2) a. *a-ŋol^{y}-iy*
1SA-3SO.love-PA
'I loved it.'

b. *a-meño-w*
1SA-3SO.want-PA
'I wanted it.'

c. *a-ŋol^{y}-e-ŋ*
1SA-3SO.love-PA-IA
'I loved it.'

The elements *-iy/-w* and *-ey* are used as stem extenders when they occur in imperfective aspect forms, before the person markers *-ha* '2P' and *-la* '3PA':

(3) a. *mi-ŋolʸ-iy-ha-ŋ*
2A-3SO.love-SE-PL-IA
'You (p) love it.'

b. *meño-w-la-ŋ*
3SO.want-SE-3PA-IA
'They want it.'

According to de la Mata, a 'pluperfect' is constructed by means of the anteriority marker *-ke*, suffixed to a past tense ending in *-iy/-w*, and by the adverb *ate* 'then', suffixed to the past tense markers *-iy* and *-ey*:

(4) a. *ki-ŋolʸ-iy-e*
1PA-3SO.love-PA-ANT
'We had loved it.'

b. *ki-meño-w-e*
1PA-3SO.want-PA-ANT
'We had wanted it.'

c. *ke-kt-iy-ate*
1PS-be-PA-then
'We had been.'

d. *a-ŋolʸ-ey-ate*
1SA-3SO.love-PA-then
'I had loved it'

The future marker *-kte* is attached to a non-reduced stem, and it can be followed by the imperfective aspect marker *-aŋ*:

(5) a. *mi-meño-kt-aŋ*
2SA-3SO.want-F-IA
'You will want it.'

b. *mi-kot-t-aŋ*
2SS-be-F-IA
'You will be.'

c. *mi-kot-te*
2SS-be-F
'You will be.'

The future marker *-kte* is also used to form a first person plural imperative. It then is not followed by the imperfective aspect marker *-aŋ*:

(6) *ki-kot-te*
1PS-be-IMP
'Let us be!'

The imperfective aspect marker *-aŋ* is attached to a reduced stem (and to the suffixes *-ey* 'past tense', *-ha* '2P'/*-la* '3PA', and *-kte* 'future', see the Examples 2, 3, and 5, respectively):

(7) a. *i-ŋol^{y}-aŋ*
3SA-3SO.love-IA
'He loves it.'

b. *i-meñ-aŋ*
3SA-3SO.want-IA
'He wants it.'

The imperative marker *-ki* is suffixed to a non-reduced stem. Person marking can be omitted in a second person singular form, but it is necessary in a second person plural form:

(8) a. *kot/mi-kot-i*
be/2SS-be-IMP
'Be!'

b. *mi-kot-ha-k, mi-kot-ha-ki*
2S-be-PL-IMP/2S-be-PL-IMP
'Be (p)!'

The third person imperative is formed by means of the morpheme *-khe*. (The element *-khe* may consist of the imperative ending *-Ø/-k* plus the benefactive case marker *-he*.)

(9) a. *či-kot-he*
3PS-be-IMP
'Let them be!'

b. *ŋole-la-khe*
3SO.love-3PA-IMP
'May they love it!'

2.6 Excursus on the copula

Cholon has three copulas: *kot* 'be', *pakot* 'be', and *toŋ* 'be (seated). The copulas *kot* and *toŋ* are personal, while *pakot* is an impersonal copula. However, *kot* and *toŋ* can also be used impersonally. Copula *toŋ* has some irregularities, such as the omission of the imperfective aspect marker *-aŋ* in the third person imperfective aspect forms. Copula *kot* can be used to form a passive voice:

(10) *a-m-kol^{y}-iy* ***me-kt-iy***
1SA-2SO-love-PA 2SS-be-PA
'You were loved by me.'

Both *kot* and *pakot* are used to form a perfect and pluperfect tense. Copula *kot* then can be used impersonally, and be equivalent to *pakot* (the forms *Ø-pokot-o-ke/Ø-pokot-te-ke* in the 'cf.' form below are examples of vowel assimilation):[1]

(11) *a-ŋol^{y}-iy* ***Ø-kot-o-ke/Ø-kot-te-ke***
1SA-3SO.love-PA 3SS-be-FN2-ANT/3SS-be-FN1-ANT
'that I have/had loved you'

cf: *a-ŋol^{y}-iy* ***Ø-pokot-o-ke/Ø-pokot-te-ke***
1SA-3SO.love-PA 3SS-be-FN2-ANT/3SS-be-FN1-ANT
'that I have/had loved you'

Alongside the meaning 'be', *kot*, *pakot* and *toŋ* can also mean 'have.' When this is the case, (i), *kot* occurs in a construction with the comitative case marker *-nik* 'with', suffixed to the possessed noun; (ii), *pakot* and *toŋ* are accompanied with a prefixed applicative marker, (iii), *toŋ* can then be used impersonally:

(12) *Pedro* ***a-mot-nik*** ***a-kt-aŋ***
Pedro 1SPOS-name-CO 1SS-be-IA
'My name is Pedro.' (lit. 'I am with the name Pedro').

(13) *kač* ***Ø-m-a-pakt-aŋ***
maize 3SS-2SO-APL-be-IA
'You have maize.' (lit. 'Maize, it is there for you').

(14) ***Ø-m-a-toŋ***
3SS-2SO-APL-be
'you have' (lit. 'there is for you').

In nominal predicate constructions, formed with nominalized forms ending in *-lam* 'future nominalizer1', *-ŋo* 'future nominalizer2', and *-pakna* 'negative nominalizer' + the copula *kot*, the latter can be omitted. The nominalized forms then function as main predicates:

(15) *a-pa-tu-p* *lisensia* *ŋ-a-y-iy/**ŋ-a-e-lam***
1SPOS-father-AD-ABL permission 3SA-1SO-give-PA/3SA-2SO-give-FN1
'My father gave me permission.'

(16) *ŋita-wo-w-a,* *into-ñ-am* ***ki-l-o-ŋo***
3SS.wild-VB-PA-TOP which-CMP-Q 1PA-3SO-do-FN2
'If he has fled, what do we have to do with him?'

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1. In Cholón, vowel harmony is a case of metaphony, viz. non-contact or distant assimilation. This harmony is regressive. In the forms *Ø-pokot-o-ke/Ø-pokot-te-ke* 'that it had been', for example, the vowel *a* of *pakot* 'to be' harmonizes with the following stem vowel.

(17) *into-ñ* ***ki-amo-pakna***
which-CMP 1PS-eat-NEG.NOM
'It is impossible to eat.'

2.7 Verb structures: A summary

We have seen that an intransitive 1s/2s/3s form of a main verb may have different structures, according to the form of the stem. The stem can be, 1, non-complex and non-derived; 2, complex and non-derived; 3, complex and derived. A subordinate verb form is never marked for aspect, tense, or mood. The difference between the form structures of a main verb and those of a subordinate verb is shown in the following overview (red. = reduced):

main verb

	(red.) stem	
s	non-red. stem – (red.) bound stem	TAM
	non-red. stem – non-red. bound stem -(red.) derived stem	

subordinate verb

	non-red. stem	
(s)	non-red. stem – (red.) bound stem	NOM/SUB (-CM)
	non-red. stem – non-red. bound stem – non-red. derived stem	

3. Subordinate clauses

3.1 Introduction

Nominalizing and subordinating affixes that can be attached to simple stems, bound stems, and derived stems are: *-eč* 'factivizer', *-eč* 'resultative', 'purposive', *-hu* 'switch reference', *-khe* 'simultaneity', *-kte* 'infinitive', *-lam* 'future nominalizer1', *-ŋo* 'future nominalizer2', *-nap* 'sequence', *-wuč* 'agentive.' They are suffixed to a non-reduced stem, except for resultative/purposive *-eč*, which is attached to a reduced stem. The suffixes mentioned above can be distinguished into three categories:

I. nominalizers A:

-eč 'factivizer'
-lam 'future nominalizer1'
-ŋo 'future nominalizer2'
-wuč 'agentive'

These have the following characteristics:

a. they can be used to derive a noun from a verb:

tˢamo-č (3SO.know-FAC)	'wisdom'
a-kot-lam (1SS-be-FN1)	'my (future) existence'
ki-tˢač-o (1PA-3SO.see-FN2)	'visible', 'something visible'
ŋole-wuč (3SO.love-AG)	'he/she who loves someone', 'a lover';

b. they can be followed by case markers, with the exception of the agentive marker *-wuč*;
c. they resemble the demonstratives *iŋko* 'that one' and *ko* 'this one', in that forms marked with *-eč, -lam, -ŋo*, and *-wuč*, like those ending in *iŋko* and *ko* (discussed below in this section, as well as in Section 3.3), can modify a nominal head and function as a relative clause.

II. nominalizers B:

-khe 'simultaneity'
-kte 'infinitive'
-nap 'sequence'

These can be followed by case markers. The nominalizations formed by them, however, can not modify a nominal head and do not function as a relative clause (for examples with *-khe* 'simultaneity' and *-kte* 'infinitive', see Section 3.2; for those with *-nap* 'sequence', see Section 3.4);

III. subordinators:

-hu 'switch reference'
-eč 'resultative', 'purposive'

These are not followed by case markers and do not modify a head (examples with *-hu* are found in Section 3.2 and 3.4; those with *-eč* in Section 3.4).

When we compare these suffixes with each other, the following differences and similarities come to the fore:

1. factitive *-eč* ↔ purposive/resultative *-eč*. Although they are morphologically identical, they differ in use:

   i. the former is suffixed to a non-reduced stem of a verb of class 2 – 5; the latter to a reduced stem of a class 1 verb;
   ii. the former can be followed by the ablative case marker, the latter is never followed by a case marker;

iii. subordinator *-eč* can be preceded by future marker *-kte*. The suffix combination *-kt-eč* indicates a purpose. Nominalizer *-eč* never occurs in combination with future marker *-kte*.

2. *-lam* ↔ *-ŋo.* The nominalizers *-lam* and *-ŋo* do not have the same form, but they do have in common that both refer to an event in the future, and to the following modalities: 'obligation' and 'possibility.' The suffix *-ŋo* can also express 'dignified to be.' According to de la Mata, *-lam* is equivalent to the Latin ending *-rus* (*-turus*) of 'future of infinitive' and 'future participle', *-ŋo* to the ending *-dus* (*-ndus*) of 'gerundive' ('having to be …'). Another difference between both nominalizers is case marking: *-lam* can be followed by the benefactive case marker *-he*, *-ŋo* by the anteriority marker *-ke*.
3. *-khe* ↔ *-hu*. According to de la Mata, both *-khe* and *-hu* can be used to form an absolute ablative. However, the former is employed when the subject/agent of the verb is identical to that of the main verb, the latter is employed when the subject/agent is not the same person. Another difference in use is that *-khe* can be followed by case markers, whereas *-hu* is never followed by case markers. The suffix *-khe* indicates that the event expressed by the verb takes place simultaneously with the event expressed by another verb, *-hu* indicates that the verb is subordinate to another verb and that there is a switch of subject/agent. (The ending *-khe* occurs in de la Mata's verbal paradigm as an ablative of gerund, together with *-nap*, *-hu* occurs in his subjunctive paradigm, together with nominalizer *-eč*.)
4. *-kte* ↔ *-lam* and *-ŋo*. The use of the suffix *-kte* corresponds to that of *-lam* and *-ŋo*. The similarity between *-kte* and *-lam* is that both can be followed by the benefactive case marker *-he*, the similarity between *-kte* and *-ŋo* is that they can be followed by the anteriority marker *-ke*. According to de la Mata, the ending *-kte-he* is identical to *-lam-he*, and *-kte-ke* to *-ŋo-ke*. In his verbal paradigm, *-kte-he* and *-lam-he* are genitive/dative/accusative of gerund endings, *-kte-he* and *-(ŋo)-ke* are endings of the 'optative' mood.
5. *-kte* ↔ *-nap*. The suffixes *-kte* and *-nap* occur in de la Mata's 'infinitive' paradigm. The former is regarded as a 'present participle', the latter as a 'past participle.' The ending *-kte* indicates that the event expressed by the subordinate verb takes place after, or posterior to another event; *-nap* indicates that the event expressed by the verb takes place before, or anterior to another event. (In de la Mata's verbal paradigm, *-nap* also occurs as an ablative of gerund, see the remarks about *-khe* above.)
6. *-wuč* ↔ other nominalizers. A nominalization with the agentive marker *-wuč* is rather different from those with the other nominalizers, in that, in the agentive forms, the subject/agent of the verb is not marked with a

prefix, but with a suffix: the ending *-wuč*. In an article about nominalizations, Muysken (1999: 249–252) also makes a distinction between agentive nominalizations, such as *ŋole-wuč* 'lover', on the one hand, and other nominalizations, such as *a-kot-lam* 'my existence', *ki-tˢač-o* 'visible', 'something visible', and *tˢamo-č* 'wisdom', on the other hand, calling them 'action nominalizations.' Comrie and Thompson (1985: 349–398) also distinguish different types of nominalizations, such as: agentive nominalizations like *ŋole-wuč* 'lover', objective nominalizations like *tˢamo-č* 'wisdom' and *ki-tˢač-o* 'visible'/'something visible', and state nominalizations like *a-kot-lam* 'my existence.') We come back on the subject of nominalization in Section 3.5.

In Cholón, different types of subordinate clauses can be formed by means of nominalizers and subordinators: complement clauses (Section 3.2), relative clauses (Section 3.3), and adverbial clauses (Section 3.4). Generally speaking, complement clauses are formed by means of nominalizers, and adverbial clauses with case markers. However, forms ending in *-khe* and *-kte* may also function as a complement clause, as are forms marked with *-hu*. The subordinate verb forms, formed by means of one of the suffixes mentioned, lack tense, aspect and mood marking, but they are always marked for subject, agent, and object, except the nominalized forms marked with *-khe* when they share the subject/agent with the main verb.[2]

The case markers found after nominalized forms are the following:

-ap/-nap	ablative 'from'
-he	benefactive 'for'
-le	terminative 'until'
-man	inessive 'in'
-(mi)ñ	comparative 'like'
-nake	perlative 'by means of/through'
-nayme	prolative 'via'
-nik	comitative 'with'
-pat	instrumental 'with'
-pi	allative 'to'
-te	adessive 'at'
-tu	personal adessive 'at'

2. According to Cristofaro's 'Frequency Hierarchy' (Cristofaro 2003: 289), the lack of TAM distinction (cf. the nominalized verb forms) and of person agreement (cf. those ending in *-khe*) are the most frequent parameters for the morphosyntactic coding of subordination.

The adessive case marker *-tu* is used with nouns indicating a person, in all other cases of adessive marking the suffix *-te* is used.[3] The case markers can also occur in combination with each other. The suffix *-pat* is often found in combination with the form *-lʸak*. This form may be a nominalized form of the verb *lʸa/lʸaw* 'go.' The suffix combination *-lʸak-pat* indicates 'cause', 'the reason why.' Nominal stems and forms ending in *-ŋo* 'future nominalizer2' and *-kte* 'infinitive' can also be followed by the anteriority marker *-ke*. The suffix *-ke* is a complex morpheme. It indicates primarily a former state. This state can be:

i. a location: *Lima(-te)-ke* 'from Lima (origin)';
ii. a period: *ampal-e* 'from yesterday';
iii. an existence: *Luis-e* 'the late Luis';[4]
iv. a material: *čečo-ke* '(made) of silver.'

The suffix *-ke* indicates 'past', when occurring in the forms marked with *-ŋo* and *-kte*, and in past tense forms (see Section 2.5). In the latter forms *-ke* equals ate 'then' and functions as an adverb (see Example 4).

Case markers also occur after fully inflected nominalized forms. These forms are nominalized by means of a zero marker.

The lack (–) or occurrence (+) of TAM, S/A/O, switch-reference (SR), co-reference (CR), and case marking (CM) with the different forms of transitive verbs are schematically represented in the following array:

3. In a table presenting the case marking system of Leco, Van de Kerke (2000:35) compares Leco case markers with those of other languages, including Cholón. It appears that both Leco and Cholón nouns are not marked for nominative, nor accusative; that both languages have an adessive/locative marker *-te*; and that the Leco ablative marker *-rep* bears a strong resemblance to that of Cholón *-te-p*.

4. In the examples (i), (ii), and (iv), *-ke* 'of/from' might be considered as a separative/genitive case marker, and in example (iii) as a nominal past marker. Nominal past markers regularly occur in Cariban languages. Trio, for instance, uses the suffixes *-hpë* and *-npë* to express nominal past, see Carlin 1997:25–36. These markers strongly resemble the Cholón suffix *-ke*. Like *-ke*, they relate 'past' to 'possession': "[…] these suffixes express 'former' possession, that is, they indicate that something used to be in someone's possession but no longer is, including the situation that holds if the possessor has died […]" (Carlin 2004:108).

	-eč	*-lam*	*-ŋo*	*-wuč*	*-khe*	*-kte*	*-nap*	*-hu*	*-eč*
TAM	−	−	−	−	−	−	−	−	−
S/A	+	+	+	+	−	+	±	+	+
O	+	+	+	+	+	+	+	+	+
SR	+	+	+	+	−	+	+	+	+
CR	+	+	+	+	+	+	+	−	+
CM	+	+	+	−	+	+	+	−	−

The following elements can also be used to form a subordinate clause: demonstrative *iŋko* 'that one', *into-ŋko* 'that one there' and *ko* 'this one', indefinite pronoun *ol* 'who', co-ordinator *-pit*, and topic marker *-wa*. Finite verb forms ending in *-aŋ* 'imperfective aspect' and in *-iy/-w* 'past tense' can function as a subordinate clause, when they are nominalized by means of a zero nominalizer.

A negative subordinate clause is formed with the ending *-pakna* 'negative nominalizer.' The suffix *-pakna* may have been derived from the derivational suffix *-pe* 'negation' + a nominalizing element *-na*, or from a negativizer *-pak* + a nominal element *-na*. Forms ending in *-pakna* also lack TAM marking and can also be followed by case markers. The ending *-pakna* is parallel in use to *-ŋo* and can be considered as its negative counterpart. However, unlike *-ŋo*, which can be used to form a noun, or an adjective, *-pakna* is not used as such.

3.2 Complement clauses

Complement clauses are formed with the following suffixes: *-eč* 'factivizer', *-lam* 'future nominalizer1', and *-ŋo* 'future nominalizer2' (all nominalizers of type A), *-khe* 'simultaneity', *-kte* 'infinitive' (both nominalizers of type B), and the subordinator *-hu* 'switch reference.' Three types of complement clauses can be distinguished: subject clauses (Section 3.2.1), direct object clauses (Section 3.2.2), and nominal predicate clauses (Section 3.2.3).

3.2.1 *Subject clauses*

The following suffixes are used to form a subject clause: *-eč*, *-lam*, *-ŋo* (*nominalizers-A*) *-khe* (*nominalizer-B*), *-hu* (*subordinator*), and the negative nominalizer *-pakna*:

(18) ***a-lu-wo-č*** *Ø-mas-aŋ*
1SS-interior-VB-FAC 3SS-take.all.night-IA
'All night long I am sad.'

(19) *iglesia-te* ***ki-lʸa-lam*** *Ø-pakt-aŋ*
church-AD 1PS-go-FN1 3SS-be-IA
'We have to go to church.'

(20) *palʸow* ***ki-kot-o*** *Ø-kot-aŋ*
good 1PS-be-FN2 3SS-be-IA
'We have to be good.'

(21) ***mi-esteh-he*** *ašmaŋ* *palʸow* *Ø-kot-aŋ*
2SS-enter-SIM first good 3SS-be-IA
'It is good for you to enter first.'

(22) *a-tˢip-te* ***a-toŋ-hu*** *Ø-patˢ-iy*
1SPOS-house-AD 1SS-be-SR 3SS-take.all.day-PA
'All day long I was at home.'

(23) *into-ñ* ***ki-l-o-pakna*** *Ø-kot-aŋ*
which-CMP 1PA-3SO-do-NEG.NOM 3SS-be-IA
'There is no remedy [for that].' (< 'It cannot be done by us').

3.2.2 *Object clauses*

Object clauses are formed with the suffixes *-eč, -lam, -ŋo, -kte, -hu*:

(24) ***i-m-kole-č*** *mi-tˢač-te*
3SA-2SO-love-FAC 2SA-3SO.see-F
'You will see that he loves you.'

(25) ***mi-l-o-lam*** *l-o-k*
2SA-3SO-do-FN1 3SO-do-IMP
'Do what you have to do!'

(26) *čaplʸoŋ* ***i-l-o-ŋo*** *Ø-tˢam-aŋ*
pan 3SA-3SO-make-FN2 3SS-3SO.know-IA
'He knows [how] to make pans.'

(27) ***a-lʸa-kte*** *a-menʸ-aŋ*
1SS-go-INF 1SA-3SO.want-IA
'I want to go.'

(28) *hul* *e-k,* ***ŋol-hu*** *mi-taš-te*
pine.cone give-IMP 3SS.die-SR 2SA-3SO.see-F
'Give [him] pine cones, [and] you will see him die.'

3.2.3 *Nominal predicate clauses*

The morphemes *-lam*, *-ŋo*, *-khe,* and *-pakna* can be used to form a nominal predicate clause:

(29) ***ki-lʸa-lam*** *ke-kt-aŋ*
1PS-go-FN1 1PS-be-IA
'We can go.'

(30) *Dios-tu-p* ***ki-ŋole-ŋo*** *Ø-kot-aŋ*
God-AD-ABL 1PA-3SO.love-FN2 3SS-be-IA
'God is to be loved by us.'

(31) *ip-ta-pi* *ayča* ***lʸup-he*** *i-toŋ*
two-CL:stony-AL meat eat-SIM 3PS-be.IA
'Both are eating meat.'

(32) ***a-kot-pakna*** *a-kt-aŋ*
1PS-be-NEG.NOM 1SS-be-IA
'I cannot be.'

3.3 Relative clauses

Relative clauses are formed by means of the suffixes *-eč, -lam, -ŋo,* and *-wuč*. The demonstratives *iŋko*, *into-ŋko*, *ko*, and the indefinite pronoun *ol* can also be used to form a relative clause. The deictics *iŋko* and *ko* then are attached to a finite verb form. Finite verb forms without the demonstrative *iŋko* may also function as relative clauses.

3.3.1 *Nominalizers* -eč, -lam, -ŋo, -wuč

The factivizer *-eč* is used to form a relative object clause:

(33) *a-poŋ-pat* ***i-lʸa-č*** *a-po-yč-iy*
one-CL:group-INS 3PS-go-FAC 1SA-3PO-see-PA
'I saw them going in a troop.'

Examples of relative clauses formed with the nominalizers *-lam* 'future nominalizer1', *-ŋo* 'future nominalizer2', and *-wuč* 'agentive' are as follows:

(34) *mula* *lum-te* ***ku-tup-lam*** *pana*
mule top-AD 1PS-walk-FN1 road
'a mulepath' (lit. 'a road which we have to walk on a mule')

(35) *ko* ***ŋosilʸw-o*** *putam-te*
this 3SS.go.round-FN2 world-AD
'in this beautiful world' (lit. 'in this world which goes round')

(36) ***kot-uč***
be-AG
'he/she who is', 'a being'

3.3.2 *Demonstratives* iŋko, into-ŋko *and* ko, *and the indefinite pronoun* ol

The deictics *ko* 'this one' and *iŋko* 'that one' function as relative pronouns when they are suffixed to a finite verb form, viz. a form marked for person, and for tense or aspect. The former is attached to a non-future imperfective aspect form ending in *-aŋ*. The latter is suffixed to a past tense form marked with *-iy/-w*, whether or not followed by the anteriority marker *-ke*, and to an imperfective aspect future form

ending in *-kte-aŋ*. It can also be attached to a nominalized future form marked with *-lam* 'future nominalizer1':[5]

(37) a. ***a-kt-aŋ-ko***
1SS-be-IA-DEM
'I who am.'

b. ***a-men^{y}o-w-iŋko***
1SA-3SO.want-PA-DEM
'I who loved him.'

c. ***Ø-kot-iy-e-iŋko***
3SS-be-PA-ANT-DEM
'He who had been.'

d. ***i-ŋole-kt-aŋ-iŋko***
3SA-3SO.love-F-IA-DEM
'He who will love him.'

e. ***a-ŋole-lam-iŋko***
1SA-3SO.love-FN1-DEM
'I who will love him'

The deictic *into-ŋko* 'that one there' and the indefinite pronoun *ol* 'who' can also function as relative pronouns and form a relative clause:

(38) *iŋko* *nal^{y}o* ***ol/into-ŋko*** *Jesus* *i-ŋol^{y}-iy* *i-t^{s}č-iy*
that disciple who/that.one.there Jesus 3SA-3SO.love-PA 3SA-3SO.see-PA
'He saw the disciple whom Jesus loved.'

3.3.3 *Finite verb forms*

In Section 3.2.2 we have seen that verb forms (a) marked for person, and for tense and aspect, and (b) followed by the demonstratives *ko* and *iŋko*, can function as relative clauses. According to de la Mata, fully inflected forms (i.e. with TAM marking) without the demonstrative *iŋko* can also function as relative clauses. In this case, I assume a zero marker that replaces *iŋko*, and the zero marker nominalizing the finite forms, so that they can function as a subordinate clause, and be followed by case markers.

In the data the following examples of finite forms without *iŋko* occur, functioning as relative clauses:

(39) a. *i-ŋol^{y}-iy-Ø*
3SA-3SO.love-PA-NOM
'the one who loved him'

---

5. Note that space has a temporal connotation: *ko* 'here' is linked with present, *iŋko* 'there' with past and future. Cf. the adverbial clauses formed with the adessive case marker *-te* 'at' (Section 3.3.5). They may be locative as well as temporal.

b. *i-ŋole-kt-aŋ-Ø*
3SA-3SO.love-F-IA-NOM
'the one who will love him'

3.4 Adverbial clauses

Adverbial clauses are mainly formed by means of nominalizers in combination with case marking. Causal clauses (Section 3.4.1), purposive clauses (Section 3.4.2), and temporal clauses (3.4.3) can also be formed without case marking. A resultative clause is always formed without case marking (3.4.4). Case markers and case marker combinations used to form subordinate clauses are: *-he* 'benefactive', *-(lʸak-)pat* 'causal', *-(lʸak-)te-p* 'instrumental', *-man-ap* 'ablative', *-(mi)ñ* 'comparative', *-nake* 'perlative', *-nap* 'ablative', *-pat* 'instrumental', *-pat-le* 'terminative', *-te* 'adessive', *-te-p* 'instrumental', 'elative', and *-tu-p* 'agent', 'focus' (Section 3.3.5). Anteriority marker *-ke* can also be used to form a subordinate clause (Section 3.3.6). Other morphemes that can be used to form a subordinate clause are co-ordinator *-pit*, and topic marker *-wa* (Section 3.3.7).

3.4.1 *Causal clauses*

Causal clauses can be formed with the suffixes *-eč* 'factivizer', *-khe* 'simultaneity', *-nap* 'sequence', and *-hu* 'switch reference':

(40) ***metah-la-č*** *či-po-šayč-aŋ*
3SO.miss-3PA-FAC 3PA-3PO-whip-IA
'They whip them, because they miss it (the Mass).'

(41) *palʸow* ***kot-he,*** *tˢamo-č* *a-kot-t-aŋ*
good be-SIM 3SO.know-FAC 1SS-be-F-IA
'Because I am good, I shall be learned.'

(42) *tˢi-tu-p* *ŋ-a-lo-y* ***Ø-kot-e-nap,*** *kama* *a-ki-aŋ*
rain-AD-ABL 3SA-1SO-wet-PA 3SS-be-SE-SEQ ill 1SS-be-IA
'I am ill, because the rain wet me.'

(43) *tˢi* *mahat-te* ***Ø-pokot-hu,*** *učuah* *Ø-pakt-aŋ*
rain 3SS.fall-F 3SS-be-SR warmth 3SS-be-IA
'It is warm, because it will rain.'

They can also be formed by means of the following case marking: *-lʸak-pat, -lʸak-te-p, -tu-p*:

(44) *kečwak* ***a-kt-aŋ-ko-(lʸak-)pat/*** ***-(lʸak-)te-p*** *ahlʸem* *mi-kot-p-aŋ*
poor 1SS-be-IA-DEM-(NF-)INS/ -(NF-)AD-ABL friend 2SS-be-NEG-IA
'Because I am poor, you are not my friend'

(45) *hayu-lol u-n-utˢa pa mek* ***če-kt-iy-Ø-(lʸak-)pat/*** ***(lʸak-)te-p,***
man-PL 3PPOS-RF-sin INT all 3PS-be-PA-NOM-(NF-)INS (NF-)AD-ABL
Dios yam mo-o-w
God penance 3SA.3PO-do-PA
'Because the sins of men were that many, God punished them.'

(46) *into-nʸ-a a-m-pako-kt-aŋ,*
which-CMP-TOP 1SA-2SO-know-F-IA
a-m-yač-pakna ***Ø-kot-o-tu-p***
1SA-2SO-see-NEG.NOM 3SS-be-FN2-AD-ABL
'How shall I know you, for I can not see you.'

3.4.2 *Purposive clauses*

The subordinator *-eč* 'purposive'/'resultative' and the benefactive case marker *-he* are used to form a purposive clause. The former can be preceded by future marker *-kte*, the latter is attached to the nominalizer *-kte* 'infinitive' and future nominalizer *-lam*:

(47) *palʸow* ***me-kt-eč*** *i-m-pas-aŋ-sim,* […]
good 2SS-be-PURP 3SA-2SO-advise-IA-EMP
'He advises you, so that you will be good, […].'

(48) *kalʸsok-he mi-l-o-ki* ***mi-tesah-la-kt-eč***
benevolence-BEN 2SA-3SO-do-IMP 2SO-thank-3PA-F-PURP
'Do it with benevolence, so that they will thank you.'

(49) *pakuplew* ***a-m-e-kte-he*** *a-na-ŋ*
passion.fruit 1SA-2SO-give-INF-BEN 1SS-come-IA
'I come to give you passion fruits.'

(50) ***či-Ø-paso-lam-he*** *mo-pilm-iy*
3PA-3SO-preach-FN1-BEN 3SA.3PO-send-PA
'He sent them, so that they would preach it.'

3.4.3 *Temporal clauses*

The subordinator *-hu* 'switch reference' and the nominalizers *-khe* 'simultaneity' and *-nap* 'sequence' can be used to form a temporal clause:

(51) *p-a-ym-eh-uč* ***mi-kot-hu,*** *mi-nlʸo* *a-kt-iy*
3PO-APL-know-CAUS-AG 2SS-be-SR 2SPOS-disciple 1SS-be-PA
'When you were a teacher, I was your disciple.'

(52) *mučaŋ* *i-l-o-w,* *a-nek* *mi-amo-ki-na* ***ki-khe***
prayer 3SA-3SO-do-PA 1SPOS-company 2SS-eat-IMP-QUOT say-SIM
'He prayed him saying: "Eat with me".'

(53) *liw* ***tˢač-e-nap*** *a-kule-kt-aŋ*
writing 3SO.see-SE-SEQ 1SS-go.to.bed-F-IA
'I shall study first and then I shall go to bed.'

(54) *hayu* ***ŋol-nap-a*** *mu-mpuš-tu-p*
man 3SS.die-SEQ-TOP 2SPOS-riches-AD-ABL
inča-te-m *i-malʸow-eh-t-a ŋ*
thing-AD-Q 3SA-3SS.benefit-VB-F-IA
'How can your riches be profitable, when a man dies.'

Temporal clauses furthermore are formed with the following case marking: 'ablative' *-ap/nap* and *-man-ap*, 'comparative' *-(mi)ñ*, when followed by adverbial suffix *-čo* 'already', 'terminative' *-pat-le*, 'adessive' *-te*, 'instrumental'/'elative' *-te-p*:

(55) *mi-ye-y* ***ki-khe-nap,*** *nem* *Ø-poho-w*
2SS-sleep-PA do-SIM-ABL day 3SS-dawn-PA
'After you got up, the day dawned.'

(56) ***mi-pot-iy-Ø-man-ap*** *ol-pit* *Ø-moh-p-aŋ*
2SS-come-PA-NOM-IN-ABL who-IND 3SS-go.up-NEG-IA
'After you came, nobody has come [up].'

(57) ***i-Ø-č-aŋ-Ø-minʸ-čo*** *Ø-kot-hu*
3SA-3SO-give.birth-IA-NOM-CMP-already 3SS-be-SR
kuči-wa *ki-Ø-lam-iy*
pig-TOP 1PA-3SO-kill-PA
'As for the pig, being on the verge of giving birth, we killed her.'

(58) ***mi-lʸa-ŋo-pat-le-lʸ***
2SS-go-FN2-INS-TERM-RST
'just till you go'

(59) ***Ø-lʸa-ŋo-te***
3SS-go-FN2-AD
'when he goes'

(60) *hayu* ***a-kt-iy-Ø-te-p***
man 1SS-become-PA-NOM-AD-ABL
'after I became a man'

3.4.4 *Resultative clauses*

Resultative clauses are formed with the subordinator *-eč* 'purposive'/'resultative':

(61) *oyna-čo* ***a-kt-eč*** *ŋ-a-tˢukiow-o-w*
health-already 1SS-be-PURP 3SA-1SO-medecine-do-PA
'He cured me, so that I am already healed.'

3.4.5 *Other adverbial clauses*

Alongside the adverbial clauses mentioned in Section 3.4.1 – 3.4.4, formed by means of nominalized and subordinate forms, with or without case marking, there are a number of adverbial clauses which are always formed with case markers: avoidance, comparative, contrastive, indirect complement, locative, 'not only … but also', and similarity clauses. The case markers employed to form these clauses are:

– avoidance clauses: *-man-ap* 'ablative', *-te-p* 'instrumental'/'elative':

(62) *ok a-hil-t-aŋ into-nʸ-am yam*
1S 1SS-say-F-IA which-CMP-Q penance
ki-o-itˢ-lam-man-ap-a *ki-špo-kt-aŋ*
1PS-do-PAS-FN1-IN-ABL-TOP 1PS-remain.free-F-IA
'I shall say how we shall remain free from penance.'

(63) *into mek ku-n-utˢa* ***ki-l-o-lam-te-p***
which all 1PPOS-RF-sin 1PA-3SO-do-FN1-AD-ABL
peh-ču ki-o-no-ŋo Ø-kot-aŋ
flight-DIM 1PS-do-RFL-FN2 3SS-be-IA
'How can we escape from [our] sin?'

– comparative: *-man-ap* 'ablative':

(64) *a-n-utˢa* ***a-l-o-kte-man-ap,*** *ašmaŋ*
1SPOS-RF-sin 1SA-3SO-do-INF-IN-ABL first
a-kol-te a-menʸ-aŋ
1SS-die-INF 1SA-3SO.want-IA
'I prefer to die, rather than to sin.'

– contrastive: *-nake* 'perlative':

(65) *an-tˢel a-tˢap-te-na* ***sepeh-he-nake,***
one-CL:long 1SA-3SO.catch-F-QUOT claim-SIM-PER
an-tˢel i-tˢp-aŋ
one-CL:long 3SA-3SO.catch-IA
'Instead of catching one, he catches another one.'
('While claiming: "I shall catch one", he catches another one').

– indirect complement: *-pat* 'instrumental':

(66) *baptismo-te hayu* ***Ø-maso-kiah-he-pat***
baptism-AD man 3SS-be.born-RE-SIM-INS
ki-Dios-a mul-iy-pit^{s}-o
1PPOS-God-TOP 3SS.be.satisfied-PA-NEG-FN2
'our God, not being satisfied with the fact that man was reborn in baptism'

– locative: *-te* 'adessive':

(67) ***ki-y-iy-Ø-te***
1PS-sleep-PA-NOM-AD
'where we slept'

– "not only … but also": *-man-ap* 'ablative':

(68) *owlum Martin* ***i-t^{s}ah-iy-Ø-man-ap*** *i-mo-ŋ*
snake Martin 3SA-3SO.bite-PA-NOM-IN-ABL 3SA-3SO.burn-IA
'The snake not only bit Martin, he also gave him a fever.'

– similarity: *-(mi)ñ*:

(69) ***ki-m-o-aŋ-ko-n^{y}*** *ki-l-o-kt-aŋ*
1PO-2SA-say-IA-DEM-CMP 2PA-3SO-do-F-IA
'We shall do it as you order us.'

3.4.6 *Hypothetical clauses*

Hypothetical or irrealis clauses are formed by means of the anteriority and nominal past marker *-ke*, attached to a nominalized form ending in *-ŋo* 'future nominalizer2' or in *-pakna* 'negative nominalizer', and to a nominalized subordinate form ending in *-kte* 'infinitive.' The endings *-kte-ke*, *-ŋo-ke*, and *-pakna-ke* express 'future in the past', and they indicate that the event could or could not have taken place, or that it has not been realized:

(70) *mi-ŋol^{y}-iy* ***Ø-(po)kot-te-ke***
2SA-3SO.love-PA 3SS-be-INF-ANT
'You wished you had loved him.'

(71) *into mek* ***m-a-e-ŋo-ke,*** *pe mek a-m-e-kt-aŋ*
which all 2SA-1SO-give-FN2-ANT that all 1SA-2SO-give-F-IA
'Everything you would give me, I shall give you [in return].'

(72) *mi-ha-wa* ***mi-l-o-ha-pakna-ke*** *ok-nake a-l-o-aŋ*
2-PL-TOP 2A-3SO-do-PL-NEG.NOM-ANT 1S-PER 1SA-3SO-do-IA
'I do what you (p) have not been able to do.'

3.4.7 *Concessive and conditional clauses*

Concessive clauses and conditional clauses are formed by means of the suffixes *-pit* and', 'also', and *-wa* 'topic marker', respectively. Alongside 'co-ordination', co-ordinator *-pit* can also express 'concession' and form a concessive clause:

(73) *santo* ***či-kot-o-tu-p-ham-pit*** *Dios-tu-p* *i-čikn-aŋ*
saint 3PS-be-FN2-AD-ABL-CE-COR God-AD-ABL 3PS-fear-IA
'Even the saints fear God!' (lit. 'Even though they are saints, they fear God!')

(74) ***mi-l-o-pakna-tu-p-pit***
2SA-3SO-do-NEG.NOM-AD-ABL-COR
'although you do not do it'

The topic marker *-wa* can also mean 'if' and indicate a conditional clause:

(75) *palʸow* ***me-kt-iy-a*** *ok-pit* *palʸow* *a-kt-iy* *Ø-kot-te-ke*
good 2SS-be-PA-TOP 1S-COR good 1SS-be-PA 3SS-be-INF-ANT
'If you had been good, I would also have been good.'

3.5 Excursus on nominalizers, (nominalizing) subordinators and subordinate clauses

In Section 3.1 we have divided up the suffixes which can be attached to verb stems into the categories: nominalizers A, nominalizers B, and subordinators, because of their difference in use. However, the dividing line between the different forms constructed is rather vague, since fundamentally all the nominalized and subordinate forms, except for the subordinated clauses marked with *-eč* 'purposive/resultative', are nominalizations, viz. verb forms with nominal properties. Like nouns, they lack TAM-marking, and most of them can be followed by case marking. The nominal status of a number of forms is underlined by the fact that they can function as subjects, objects, nominal predicates, or relative clauses. Comrie and Thompson (1985: 393) note that: "It is commonplace that a nominalization can occur wherever a noun phrase is called for. Thus, it is most natural for nominalizations to occur as subjects or objects […]". Comrie and Thompson go on to say that: "Nominalizations also often function in adverbial clauses together with a subordinating connector". Constructions with *-hu* thus can be regarded as nominalizations plus *-hu* as a subordinating connector: they lack TAM-marking, they can function as subjects and objects, and, together with *-hu*, they can also function as adverbial, viz. temporal, clauses.

Purposive/resultative forms ending in *-eč*, on the other hand, are not nominalizations:

i. they do not lack TAM-marking: subordinator *-eč* can be preceded by future tense marker *-kte*;
ii. they can not function as subjects or objects. Thus, do not have a nominal status either.

Subordinator *-eč* furthermore can be set apart from the other suffixes, including *-hu*, by the fact that it is suffixed to a reduced stem, whereas the latter are attached to a non-reduced stem.

In Cholón, all the nominalizations function as subordinate clauses, see Section 2 and 3, and can be labelled as 'clauses in disguise' (Muysken 1999: 248), or 'clausal nominalizations' (Comrie & Thompson, 1985: 392). And, as in Quechua (see Muysken 1999: 248–252), some of them are more 'noun phrase-like', such as the constructions with the agentive marker *-wuč*, others are more 'clause-like', such as the forms marked with *-hu*.

4. Conclusion: Synoptic overview

In Section 3 we have seen that different types of subordinate clauses are constructed by means of nominalized and subordinate verbs forms, sometimes followed by case markers. Section 4.1 gives an overview of the subordinate clauses formed without case markers, Section 4.2 of those with case markers.

4.1 Subordination without case marking

The following subordinate clauses are formed without case markers:

causal (caus.)
concessive (conc.)
conditional (cond.)
temporal (temp.)

nominal predicate (nom.)
direct object (obj.)
purposive (pur.)
relative (rel.)
resultative (res.)
subject (sub.)

They occur with a number of elements. A finite verb form can be nominalized by means of a zero marker, and then also function as a subordinate clause.

The different subordinate clauses and the elements used to form them are presented in Table 1. In this table, factivizer *-eč* is indicated by the abbreviation (fact.).

The nominalizers *-hu* and *-khe*, and the nominalizers *-eč*, *-lam* and *-ŋo* appear to be the most productive morphemes. They can be used to form four out of ten subordinate clauses. It also appears that relative clauses and complement clauses are formed by most of the suffixes. The former are formed with the demonstratives, the indefinite pronoun, and the nominalizers, except for the negative nominalizer *-pakna*; the latter with the nominalizers *-hu* (subject and direct object clauses), *-khe* (nominal predicate and subject clauses), and *-kte* (direct object clauses).

Table 1. Overview of subordination strategies in Cholón

	caus.	conc.	cond.	temp.	nom.	obj.	pur.	rel.	res.	sub.
iŋko 'PRO here'	–	–	–	–	–	–	+	–	–	–
into-ŋko 'DEM there'	–	–	–	–	–	–	+	–	–	–
ko 'PRO there'	–	–	–	–	–	–	+	–	–	–
ol 'who'	–	–	–	–	–	–	+	–	–	–
Ø	–	–	–	–	–	–	+	–	–	–
-eč 'fact.'	+	–	–	–	+	–	+	–	+	–
-eč 'res.'	–	–	–	–	–	+	–	+	–	–
-hu 'SR'	+	–	–	+	–	+	–	–	–	+
-khe 'SIM'	+	–	–	+	–	–	–	–	+	+
-kte 'INF'	–	–	–	–	+	–	–	–	–	–
-lam 'FN1'	–	–	–	–	+	+	–	+	–	+
-nap 'SEQ'	+	–	–	+	–	–	–	–	–	–
-ŋo 'FN2'	–	–	–	–	+	+	–	+	–	+
-pakna 'NEG.NOM'	–	–	–	–	+	–	–	–	–	+
-wuč 'AG'	–	–	–	–	–	–	+	–	–	–
-pit 'COR'	–	+	–	–	–	–	–	–	–	–
-wa 'TOP'	–	–	+	–	–	–	–	–	–	–

4.2 Subordination with case marking

Adverbial clauses are mainly formed with the following case markers: *-ap/-nap* 'ablative', *-he* 'benefactive', *-(lʸak-)pat* 'because', *-(lʸak-)te-p* 'because', *-man-ap* 'ablative', *-(mi)ñ* 'comparative', *-nake* 'perlative', *-pat-le* 'terminative', *-te* 'adessive', *-te-p* 'instrumental'/'elative', *-tu-p* 'agent'/'focus'/'source.' Adverbial clauses, formed by means of these markers, are:

avoidance (av.)
causal (caus.)
comparative (comp.)

contrastive (cont.)
locative (loc.)
"not only … but also" (nob.)
purposive (pur.)
similarity (sim.)
temporal (temp.)

Hypothetical or irrealis clauses (irr.) are formed with the anteriority marker *-ke*. Table 2 presents the case markers and their role in subordinate clauses.

Table 2. The use of case markers to form subordinate clauses

	av.	**caus.**	**comp.**	**cont.**	**irr.**	**loc.**	**nob.**	**pur.**	**sim.**	**temp.**
-man-ap	+	−	+	−	−	−	+	−	−	+
-te-p	+	−	−	−	−	−	−	−	−	+
-(mi)ñ	−	−	−	−	−	−	−	−	+	+
-te	−	−	−	−	−	+	−	−	−	+
-ap/-nap	−	−	−	−	−	−	−	−	−	+
-he	−	−	−	−	−	−	−	+	−	−
-(ʲak-)pat	−	+	−	−	−	−	−	−	−	−
-(ʲak-)te-p	−	+	−	−	−	−	−	−	−	−
-nake	−	−	−	+	−	−	−	−	−	−
-pat-le	−	−	−	−	−	−	−	−	−	+
-tu-p	−	+	−	−	−	−	−	−	−	−
-ke	−	−	−	−	+	−	−	−	−	−

It appears that ablative *-man-ap* is the most productive case marker, and that temporal clauses are formed by most of the case markers. Four out of ten subordinate clauses are formed with *-man-ap*, and half of the case markers can be used to form a temporal clause.

The arrays presented show that most of the subordinate clauses mentioned (fourteen out of eighteen) are formed by means of nominalizers. Clauses that are not formed with these morphemes are:

a. concessive and conditional clauses, which are constructed with coordinator *-pit* and topic marker *-wa,* respectively;
b. purposive and resultative clauses, which are formed with subordinator *-eč*;
c. relative clauses formed by the deictic *into-ŋko* 'that one there' and the indefinite pronoun *ol* 'who.'

Furthermore, complement clauses are constructed without case marking by means of nominalizers, (nominalizing) subordinators, and the switch reference subordinator *-hu*;

Third, relative clauses are formed without case marking by means of nominalizers, and deictics functioning as such.

Fourth, causal clauses are formed with and without case markers.

Finally, adverbial clauses are constructed with case markers, except for a part of the temporal clauses, which are constructed without case marking.

Abbreviations

A	agent	NOM	nominalizer
ABL	ablative	O	object
AD	adessive	P	plural
AG	agentive	PA	past
AL	allative	PAS	passive
ANT	anteriority	PER	perlative ('through', 'via')
APL	applicative	PL	plural marker
BEN	benefactive	POS	possessive
CAUS	causative	PRO	pronominal element
CE	conditional exclamation marker	PURP	purposive
CL	numeral classifier	Q	question marker
CM	case marker	QUOT	quotative
CMP	comparative	RE	reiterative
CO	comitative	RF	relational form
COR	co-ordinator	RFL	reflexive
CR	co-reference	RST	restrictive ('only')
DEM	demonstrative	S	subject
DIM	diminutive	S	singular
EMP	emphasis	SE	stem extender
F	future	SEQ	sequence
FAC	factivizer	SIM	simultaneity
FN1	future nominalizer 1	SR	switch reference
FN2	future nominalizer 2	TAM	tense, aspect, mood
IA	imperfective aspect	TERM	terminative ('until')
IMP	imperative	TOP	topicalizer
IN	inessive	VB	verbalizer
IND	indefinite	1	first person
INF	infinitive	2	second person
INS	instrumental	3	third person
INT	intensifier	Ø	zero
NEG	negation	~	alternates with
NF	nominalized form	↔	compared to

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Cofán subordinate clauses in a typology of subordination

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This paper presents various types of subordinate clauses in Cofán, an isolate language spoken on both sides of the Ecuadorian-Colombian border. These constructions are evaluated in light of parameters used in typological studies on subordination. We show that Cofán has two types of subordinate clauses: (i) Those that are marked with special forms of the dependent verb, and (ii) those that are marked with cliticized conjunctions, which appear attached to the dependent verb for reasons of word order, but do not affect the internal structure of the subordinate clause. In addition, our case study illustrates some more general problems involved in the application of cross-linguistic formal criteria to an individual language, with specific reference to finiteness and argument coding.

1. Introduction[1]

1.1 Cofán

Cofán is an isolate language spoken by some 1400 speakers in the eastern Andean foothills on both sides of the Ecuadorian (Sucumbíos) and Colombian (Lower Putumayo) border.[2] There are two mutually intelligible varieties of Cofán, notably Aguarico (spoken in Ecuador) and San Miguel (spoken in Colombia and a few villages on the border in Ecuador). In spite of the small number of Cofán in Ecuador (approximately 800 speakers), their language is quite vital. This has to do

1. We wish to thank our colleagues Kees Hengeveld and Gerry Wanders, an anonymous reviewer, and the editors of this volume for helpful comments on an earlier version of this paper.

2. The Cofán refer to themselves as *A'i* 'person' and to their language as *A'i-ngae* (person-MANNER). The denomination *Cofán* most probably relates to earlier settlements among the Cofán river, North-West of the former mission of San Pedro de los Cofanes. Cofán has also been referred to as *Kofán* and *Kofane*.

with the acquisition of land property rights in the past decades and the presence of bilingual primary schools (Spanish and Cofán) in all villages. Also, the Cofán display an overall positive attitude towards their own language and culture, which is best reflected in internal regulations geared towards discouraging intermarriage and the settlement of non-Cofáns in Cofán villages. In contrast, in Colombia, where approximately 600 Cofán live, Cofán is a highly endangered language. This endangerment is the result of a large degree of displacement due to the civil war in the region, the lack of education in the native language, and a higher degree of intermarriage. In addition, the Cofán in Colombia often live in mixed villages where the language of communication is Spanish.

The data presented in this paper were collected during various visits to the Cofán villages in Ecuador between 2001 and 2006 by Rafael Fischer. The language variety under study here is Aguarico.[3] Most of the examples presented here constitute examples of spontaneous speech taken from recorded narratives and conversations, occasionally supplemented by data obtained during elicitation sessions (examples (10)–(12), (33), (41), (44)–(48)). The examples are presented orthographically, largely following the conventions set out by Borman (1976) with the adaptations proposed by Fischer and Hengeveld (in prep). Grammatical glosses follow, where possible, the Leipzig Glossing Rules (LGR). A list of abbreviations can be found at the end of this paper.

1.2 Aim of this paper

In this paper, we give an overview of subordinate clause strategies attested in Cofán, and relate these strategies to findings from recent functional-typological studies on subordination (Cristofaro 2003; Malchukov 2004).

In particular, we will show that Cofán has two types of subordinate clauses: (i) Those that are marked by means of a special dependent verb form, and (ii) those that are marked by means of a cliticized conjunction. The latter type of form appears attached to the verb of the subordinate clause for independent reasons of predicate final word order, and does not affect the internal structure of the subordinate clause, which remains the same as in an independent clause.

3. The data presented in this paper are part of a research project entitled "A descriptive grammar of Cofán, an indigenous language of north-eastern Ecuador" and financed by the Netherlands Foundation for the Advancement of Tropical Research (WOTRO), grant number W 39-297. WOTRO is a subsidiary of the Netherlands Foundation for Scientific Research (NWO).

In addition, we show that one particular Cofán clause type is marked exclusively through case markers and/or definiteness markers. We will show that case and definiteness markers are clitic forms, which attach to the final element of their host constituent without affecting its internal morpho-syntactic and phonological structure.

We evaluate these Cofán case/definiteness-marked subordinate clauses in terms of two recent typological studies on subordination. On the one hand, these Cofán clauses present a counterexample to one of the implicational typological universals claimed by Cristofaro (2003), namely that the expression of case on a dependent verb implies the non-expression of inflection on that verb. On the other hand, the Cofán clauses do fit in with the typology of nominalizations proposed by Malchukov (2004), who claims that case marking does not block the expression of verbal categories. Based on this empirical evaluation we will argue in favour of Malchukov's functional explanation of the attested cross-linguistic patterns.

In addition to this rather specific typological evaluation of individual Cofán subordinate clause types, our case study also provides an illustration of some more general problems, which have already been signalled in several earlier studies, and which concern the application of formal cross-linguistic criteria to individual languages. First, the notion of finiteness is of limited applicability to a typology of Cofán subordinate constructions, since it has very little verbal inflection. A similar point applies to participant coding in Cofán subordinate clauses. Both possessives and nominative arguments are zero-marked in Cofán. As a result, there is no formal distinction between 'verbal' versus 'nominal' subject encoding (cf. Koptjevskaja-Tamm 1993; Cristofaro 2007). In view of the above, language-internal criteria might be considered, which may provide a basis for a more straightforward typology of subordination in Cofán (see also Fischer 2007).

The paper is organized as follows: In the next section, we discuss formal aspects of subordinate clauses from a functional-typological perspective. In particular, we review the cross-linguistic generalizations that emerge from the two recent typological studies on subordination mentioned above: Cristofaro (2003) and Malchukov (2004), as well as the explanatory frameworks proposed for these generalizations. Subsequently, in Section 3, we give a general overview of the formal structure of Cofán main clauses, and compare them to subordinate clauses. In Section 4, we move on to a precise description of different types of Cofán subordinate clauses, in terms of the typological parameters discussed in Section 2. In Section 5, we discuss the implications of the Cofán data in terms of the current frameworks of functional typology and cognitive linguistics. Finally, Section 6 is a brief summary and conclusion.

2. Subordination from a cross-linguistic perspective

2.1 Balanced and deranked subordinate clauses

A subordinate clause is a clausal construction that functions as an argument, an adjunct or a modifier within another clause. Three basic types of subordinate clauses are traditionally distinguished, according to their function in the matrix clause:

i. a complement clause is a clause that functions as an argument of the main verb in the matrix clause;
ii. a relative clause is a clause that functions as a modifier of a noun in the matrix clause; and
iii. an adverbial clause is a clause that functions as an adjunct in the matrix clause. (cf. Croft 2001: 321–322)

In various typological studies on the formal coding of subordinate clauses, a basic distinction is made between *balanced* and *deranked* subordinate clauses (Stassen 1985; Koptjevskaja-Tamm 1993; Croft 2001; Cristofaro 2003). *Balanced* subordinate clauses have the same formal coding as simple independent clauses (in the specific language under analysis). A balanced subordinate clause may be linked to its main clause by means of a subordinating conjunction, or it may be asyndetically juxtaposed to it. In contrast, the coding of *deranked* subordinate clauses deviates from the coding of independent clauses (again in the language under analysis). The type and amount of deviation may vary from one particular subordinate clause construction to the next, and this variation involves two main formal parameters: (i) the coding of the dependent predicate and (ii) the coding of the participant(s).[4]

Regarding the coding of the predicate, the following phenomena (among others) may occur:

(1) a. (partial) elimination of tense, mood, and/or aspect (TAM) marking, and/or agreement (AGR) marking, as compared to expression of these categories in simple main clause predicates;[5]

4. Other aspects may also be considered, such as the expression of modifiers in the subordinate clause, (cf. Malchukov 2004). Here we follow Cristofaro (2003), whose study is limited to these two parameters.

5. TAM and AGR categories in dependent clauses may also be expressed by means of forms that are *different* from the ones used in main clauses (rather than simply being lost). An example would be the use of subjunctive forms. Since this type of phenomenon is not relevant for our study, we do not discuss it any further.

b. overt morpheme attached to the dependent predicate (nominalized forms, infinitives, participles, or converbs);
c. use of nominal morphology on the dependent predicate, specifically case or adposition marking. (Croft 2001: 321; Cristofaro 2003: 82)

Regarding the coding of (one or more) participant(s) in the deranked subordinate clause, the following phenomena may obtain:

(2) a. non-expression of participants(s), and/or
b. expression of participants(s) in a different manner than in simple main clauses. This, in turn, may involve (among other things): possessive, oblique, adpositional, or attributive coding of participants(s).
(Cristofaro 2003: 82; Koptjevskaja-Tamm 1993)

2.2 Cristofaro 2003

In her typological study of subordination, based on a sample of 80 languages, Cristofaro (2003) identifies a number of implicational relations between the occurrence of the various deranking phenomena listed in (1) and (2) above (see Cristofaro 2003: 282–283). For the purpose of the present study, the most important typological implications are:

(3) a. Case/adposition marking → TAM/AGR not expressed
b. Arguments expressed as possessor → TAM/AGR not expressed

Cristofaro proposes three types of functional motivations to explain these (and other) implicational relations. Two of these functional factors can be subsumed under the principles of *Economy* and *Iconicity* (Haiman 1983). They account for the non-expression of verbal features in subordinate clauses. In particular, the economic *principle of information recoverability* explains why semantic information that is clear from the context may remain un-expressed. Iconicity explains non-expression of verbal categories and arguments in terms of *semantic integration*. This point was originally advanced by Givón (1980 and later work), who proposed the so-called *binding hierarchy* or *scale of event integration*, stating that "the stronger the semantic bond between two events, the more extensive will be the syntactic integration of the two clauses into a single though complex clause" (Givón 2001: 40).[6]

6. The principle of Iconicity thus seems superfluous to the extent that it does not explain any more than the Economy principle does. Indeed, according to Haspelmath (2008) Iconicity is irrelevant for explaining cross-linguistic generalizations found in the coding of subordinate clauses. Rather, he argues, these generalizations should be explained in terms of frequency of use. For instance, the fact that same-subject complements of 'to want' verbs are generally

Thus, the principles of Economy and Iconicity motivate the *non*-expression of *verbal* material in subordinate clauses. However, as Cristofaro shows, these factors can*not* account for the expression of *nominal* categories, such as case marking and possessive coding of argument(s). Therefore, Cristofaro proposes a third explanatory principle, which has a basis in Cognitive Linguistics (Langacker 1991). According to this principle, subordinate clauses, unlike main clauses, are conceptually not construed as independent processes, but rather as things. As such, subordinate clauses are interpreted as wholes, without any internal temporal development. Or, following the terminology of Cognitive Linguistics, they are "scanned summarily rather than sequentially" (Cristofaro 2003: 284). The prototypical way of expressing a summarily scanned thing is with a noun (phrase). According to Cristofaro, this explains why subordinate clauses, which are cognitively construed in the same way as nouns, adopt formal characteristics of nominals.

In addition, Cristofaro argues that the principle of cognitive object construal explains the non-expression of verbal categories as well. Verbal categories express meanings that pertain semantically to processes but not to objects. Since subordinate clauses are not construed as processes (i.e. are non-sequentially scanned), the meanings expressed by verbal categories become irrelevant and they may be omitted. Since thing-construal presupposes non-sequential scanning, this explains the correlation between the expression of arguments as possessors and case/adposition marking on the one hand, and the non-expression of TAM/AGR on the other hand. These correlations are captured in (3) above.

In sum, Cristofaro claims that case-marking and possessive argument coding imply non-expression of TAM/AGR in subordinate clauses, and that this can be explained in terms of cognitive construal. In addition, the non-expression of TAM/AGR is motivated by the economic principle of information recoverability and the iconic principle of semantic integration.

2.3 Malchukov 2004

In his study based on 50 languages, Malchukov (2004) proposes a typology of nominalization constructions, which, in a somewhat simplified manner, can be summarized as in (4):

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more deranked than different-subject complements, is due to the fact that "the same-subject use is overwhelmingly more frequent than the different-subject use, for well-understood reasons, [namely that] our desires naturally concern first of all our own actions." (Haspelmath 2008: 24).

(4) a. nominalizations that may express case/adposition marking and/or determiners, that may express all verbal categories, and in which arguments are expressed as in independent clauses;
b. nominalizations that express case/adpositions/determiners, that may express TAM but not verbal agreement, and in which one argument is expressed as possessive/oblique/attributive;
c. nominalizations that express case/adpositions/determiners, that cannot express any verbal categories (except valency/voice-related marking), and in which two arguments are expressed as possessive/oblique/attributive.
(Malchukov 2004: 66, 67)

This typology of nominalizations is based on two hierarchies of verbal and nominal categories, respectively. Again in a somewhat simplified manner, these hierarchies can be represented as in (5) and (6):[7]

(5) verbal subject expression/subject AGR
> TAM
> verbal object expression/object AGR/valency/voice

(6) case/adpositions/determiners
> nominal (possessive) subject expression (and AGR)
> nominal (possessive) object expression (and AGR)

These hierarchical orderings are claimed to reflect different levels of relevance of the features to the base on which they appear. The categories at the highest (or most *external*) level of the hierarchies are relevant to the *pragmatic-syntactic* function of their base form, while lower (more *internal*) level categories increasingly involve the *semantics* of the base. In particular, case markers, adpositions and determiners are external categories relevant to the pragmatic-syntactic function of referential arguments. This function is prototypically expressed by nouns (or noun phrases), but when it is expressed instead by a clausal construction, then this clause may express the relevant categorial distinctions, i.e. case/adpositions and/or determiners.

Crucially, the first nominalization type in (4a) above makes clear that in Malchukov's framework the expression of the external categories of case/adpositions/determiners in principle does *not* clash with the expression of verbal categories like TAM and the expression of both arguments as in independent clauses (cf. 'verbal subject expression' and 'verbal object expression' in (5)). The verbal

7. The verbal feature hierarchy was first proposed in Bybee (1985). A detailed account of the nominal feature hierarchy can be found in Rijkhoff (2008). An overview of other literature on feature hierarchies is provided in Chapter 3 of Malchukov (2004).

status of the dependent predicate is affected only from the second hierarchical level onwards, when the first argument gets possessive (or otherwise nominal rather than verbal) expression. In this respect, Malchukov's typology goes against Cristofaro's universal given in (3a) above, namely that the expression of case/adpositions implies the non-expression of verbal categories.[8] We return to this issue in Section 5, where we evaluate the Cofán data.

2.4 Cliticized subordinating conjunctions

Having looked at the cross-linguistic coding of subordination in general, we need to discuss a more specific issue, which is mentioned in Cristofaro's study of subordination, and which is of direct relevance to the purpose of our paper.

In particular, Cristofaro (2003: 58) explains why in specific cases it can be problematic to distinguish between a balanced subordinate clause, marked by a subordinating conjunction, and a deranked subordinate clause, marked by a special morpheme on the verb (see (1b) above). Some languages mark subordinate clauses by means of clitic particles or affixed conjunctions. Potential confusion arises when these conjunctions appear attached to the verb of the subordinate clause, while in fact they mark the subordinate clause as a whole, just like an ordinary freestanding subordinating conjunction. In such cases, the affixation or cliticization of subordination markers to the verb is independently motivated by one of the following factors:

i. the marker can be attached to any constituent in the subordinate clause, and so may happen to be attached to the dependent verb;
ii. the marker appears adjacent to the dependent verb because of word order rules;
iii. there is a rule in the language which states that the marker has to be attached to a verb. (Cristofaro 2003: 58)

According to Cristofaro:

> [I]n these cases, one might be tempted to see the complex [verb + affixed/cliticized conjunction] as distinct with respect to simple verb forms used in independent declarative clauses, and thus consider the verb deranked. The basic

8. Note that Malchukov's typology is accordance with Cristofaro's generalization given in (3b) above, namely that the expression of argument(s) as possessors implies the (partial) loss of verbal categories. This implicational relation is explained by Malchukov in terms of so-called blocking effects (see Malchukov 2004, Chapter 7): The nominal expression of an argument blocks its verbal expression. In combination with the implicational hierarchies in (5) and (6), these blocking effects account for the cross-linguistic patterns in terms of verbal and nominal categories in subordinate clauses.

> principle underlying the notion of deranking, however, is that a deranked form has to be structurally different from a corresponding one that may be used in independent clauses. Structural difference may be due to *lack of verbal categorial distinctions* and/or *special markers altering the categorial status of the dependent verb* (*nominal marking such as case endings* […]. Clitics and affixed conjunctions as such *do not alter the structure of the dependent verb* […]. A verb accompanied by a clitic/affixed conjunction should therefore be viewed as balanced, unless *some additional deranking strategy* is at work.
>
> (Cristofaro 2003: 58, emphasis added, RF & EL)

On the basis of the Cofán data that will be presented in Section 3 we argue that certain subordination strategies in Cofán involve cliticized conjunctions. In these cases, we claim that the conjunction appears on the dependent verb for independent reasons of word order (see (ii) above).

We have three types of evidence in favour of this analysis. First, the subordination marker in question appears on a clause that is completely balanced, except for the expression of case. In Cristofaro's framework, the case marker would count as an "*additional deranking strategy*" (cf. the above quotation). However, following Malchukov, we regard case marking as an external category, which is in principle independent of the categorial status of its base, and merely marks its pragmatic-syntactic function. Since all verbal categories are retained in the relevant Cofán subordinate clauses, our claim is that the relevant subordinators indeed "*do not alter the structure of the dependent verb*" (cf. again the above quotation). In addition, there are subordinate clauses in Cofán, which are marked with case or definiteness only, but are otherwise completely balanced (i.e. all verbal categories are retained and arguments are expressed as in independent clauses). This also suggests that case or definiteness marking should not be regarded as a deranking strategy.

These balanced subordinate clauses in Cofán, which are marked by means of a cliticized conjunction or only by means of a case/definiteness marker, can be contrasted with deranked subordinate clauses, which are marked with a special dependent verb form. In both balanced and deranked clauses the subordination marker appears on the dependent verb. However, in deranked clauses, the marker on the verb does affect the internal structure of the subordinate clause in terms of expression of verbal categories and/or encoding of participants.

Second, we show that the cliticized subordinators in question behave phonologically like other clitics. As we will show in Section 3, case/defninitess-markers are also phonologically clitic forms, which attach to the final element of their host, independently of the categorial status of that element.

Third, when the predicate of the subordinate clause is not a verb, the subordinator still cliticizes to it, as is shown in example (7) below. Note that it is not

possible to show that subordinators attach to other constituents than the predicate, since subordinate clauses are obligatorily predicate-final.

(7) *[injantshi a'i]=pa=tsu tsa='ka=en tsinkon-'fa*
many person=SS=DISC.3 ANA=COMP=ADVR behave-PL
'They behave like that because they are many people.'

3. Cofán main and subordinate clauses

Cofán is an agglutinating language that makes exclusive use of suffixes and enclitics. Aikhenvald (2002: 43) defines a clitic as a morpheme that "cannot form a phonological word on its own", but that must be attached "to a host, a morpheme with which it forms one phonological word". Such a phonological word is characterized as having a single stress peak. Based on this definition alone, clitics in Cofán cannot be differentiated from affixes. However, clitics and suffixes differ in terms of their ability to change the stress pattern of the phonological word. Clitics never affect the stress pattern, while some suffixes, especially derivational ones, do.[9] This is illustrated in (8) for the verb stem *kondase* ['kõ.nda.sɛ] 'tell' where the stress falls on the first syllable. Note that when the same-subject enclitic *=pa* is added, the stress remains on the first syllable, but that when the action nominalizer *-pa* is added the stress shifts to the second syllable.

(8) *'kõ.nda.sɛ 'kõ.nda.sɛ.pa kõ.'nda.sɛ.pa*
tell tell=SS tell-NMLZ
'tells/told' 'after telling' 'story'

Word order in Cofán main clauses is relatively free, that is, it is largely governed by pragmatic rather than syntactic factors such as topicality, focality, emphasis, and discourse cohesion. Semantic relations between arguments and adjuncts and the main verb are marked by enclitic case markers. The following case markers are employed in the expression of semantic and syntactic functions of participants in main clauses: nominative *=Ø* (subject, possessor), accusative *=ma* (patient),[10]

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9. In addition to this phonological criterion, there are several distributional criteria by which clitics are distinguished from suffixes. In particular, clitics may take as their host lexemes that belong to different categories, whereas suffixes are confined to stems of a single categorial value. In addition, clitics always appear external to affixes, at the right margin of the constituent. Finally, paradigmatic gaps are only encountered in stem-affix combinations but not in host-clitic combinations. See also Fischer & Hengeveld (in prep.).

10. The accusative is a marker of the semantic function PATIENT, and not a marker of direct object function, as not all direct objects get accusative marking. In passive constructions where

dative *=nga* (recipient, inessive, lative), absentive *=ve/=me* (goal, non-affected patient, depictive, result), locative *=ni* (locative), source *=ne* (source, cause, theme), elative *=ye* (elative, prolative), instrumental *=i'khu* (instrument, comitative), beneficiary *=mbe* and manner *=ngae*. An illustration of case marking is provided in example (9) below, where the patient argument *shagato* is marked with the accusative *=ma* and the resultative complement *tsoveju* with the absentive *=ve*.

(9) *tso=mba* *tsoveju=**ve**=khe=tsu* *shaga'to=**ma*** *ñoña-'fa*
do=SS face=ABST=ADDIT=DISC.3 cedar=ACC make-PL
'After doing that (they) made a face from cedar wood
(lit. made cedar into a face).'

Case markers are attached to the last element of their base constituent. NPs can consist of one or more constituents and tend to be head-final. So in example (10) below the accusative marker *=ma* cliticizes to the final word, in this case the head, of the phrase *ñotshia a'i,* marking the semantic function (PATIENT) of the NP.

		Mod	Head
(10)	*athe=gi*	*[ño-tshi=a*	*a'i]=**ma***
	see=DISC.1	good-STAT=SBSTR	person=ACC
	'I saw a good person.'		

However, NPs can also have Head-Modifier order, as in example (11) below without a difference in meaning. In such cases the case marker still attaches to the last word of the phrase, i.e. the modifier:

		Head	Mod
(11)	*athe=gi*	*[a'i*	*ño-tshi=a]=**ma***
	see=DISC.1	person	good-STAT=SBSTR=ACC
	'I saw a good person.'		

In addition, NPs can be headless, in which case the case marker also cliticizes to the modifier, since it the sole element of the phrase.

(12) *athe=gi* *[ño-tshi=a]=**ma***
see=DISC.1 good-STAT=SBSTR=ACC
'I saw a good one.'

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the patient appears as the subject of the clause, the marking of subject function overrules the marking of semantic function and the accusative marker is replaced by the nominative.

In sum, the case marker attaches to the last element of the NP, irrespective of which element that is. The same argument can be made for the definiteness markers, which always appear after the case markers.

On the basis of the distribution of case and definiteness markers in NPs, we will assume that these markers also attach to the last element of *clausal* rather than *nominal* constituents (i.e. subordinate clauses instead of NPs), irrespective of the categorial status of that element. It is not possible to prove this with evidence in the realm of subordinate clauses, since subordinate clauses in Cofán are always predicate-final.

Notably however, some subordination markers are part of the set of clitics, including case and definiteness markers, which appear in a fixed order at the end of a syntactic unit (a phrase or a clause). The relative order of these clitics is given in the template in (13) below. According to this template, a noun phrase or subordinate clause is followed by a case marker, then by the additive ('also') marker, then by a definiteness marker, and if applicable, by the interrogative and/or discontinuity marker. Some subordinate clauses are marked with a subordinating conjunction that occupies the clitic slot before the case marker.

(13) [NP/SubCl](=SUBORD)=CASE=ADDIT=(IN)DEF=INT=DISC

Examples (14) and (15) illustrate this template. In (14) the subordinate clause between square brackets is followed by the string of clitics *='cho=ma=ja=ti=ki* which correspond to the categories given in the template above.

(14) *[tisepa setta]='**cho=ma=ja=ti=ki** paña-je-'fa*
they chant=**SR=ACC=INDEF=INT=DISC.2** hear-IPFV-PL
'Did you hear them sing?'

The slots in the template in (13) may all be filled, as in (14) above, but some slots may also remain empty. As we will show in the next section, this happens for instance in case-marked subordinate clauses, where the subordinator-slot is not filled. In contrast, Cofán has a specific type adverbial clause (marked by the subordinator *=pa*), which does not take a case marker, but can be marked for definiteness, as is illustrated in (15) below.

(15) *[pa'kho koraga yaje=ma khase cu'i]=**pa=ja** ja~ja-'fa=ya*
all medicine.man yaje=ACC again drank=**SS=INDEF** GO~PL-PL=MIR
'After all the medicine men had drunk ayahuasca again they all went away.'

As explained in Section 2.1, deranked subordinate clauses can deviate from main clauses in terms of participant coding. In Cofán, such deviation can be of two kinds: (i) A participant cannot be expressed, or (ii) a participant is expressed as

a nominal modifier (attributive or possessive), rather than with one of the case markers discussed above (cf. (2) in Section 2.1).

The expression of verbal inflectional categories in Cofán simple main clauses is limited to the marking of imperfective (*-'je*) and imminent completive (*-ji*) aspect. Irrealis mood is expressed by the suffix *-ya*. Tense is not marked overtly, although future events can be marked with the irrealis. Person (subject) can be expressed by one of the discontinuity markers to be discussed further down. But the latter cannot be considered a verbal category since they do not pertain exclusively to the verbal domain, and are never obligatorily expressed. The category of number can be expressed with the plural subject marker *-'fa*. Again this marker does not pertain to the verbal domain only, since it is found on both verbal (see example (14) above) and non-verbal predicates as in example (16) below, where the plural marker is found on a nominal predicate. Moreover, the plural marker *-'fa* is optional in both main and subordinate clauses.

(16) *ingi=ta* *avuja=tsh=e* *canse='cho* *a'i-'**fa**=gi*
we=INDEF happy-STAT=ADVR live=SR person-PL=DISC.1
'As for us, we were people that lived happily.'

In the next section we will see that in some Cofán subordinate clause types all verbal categories can be expressed, while in others they are (partially) lost.

As already mentioned, Cofán subordinate clauses can be distinguished from main clauses on the basis of constituent order: whereas constituent order in main clause is relatively free, in subordinate clauses it is always predicate final.[11] Apart from this one, there is a second language-internal criterion that distinguishes main from subordinate clauses, namely the possibility to use one of the clitic discontinuity markers *=gi* 'DISC.1', *=ki* 'DISC.2' and *=tsu* 'DISC.3'. As is illustrated in (17), these markers attach to the first constituent of the clause, irrespective of its categorial status, and mark discontinuity in discourse (discontinuity of time, location and/or participants). Discontinuity markers agree in person with the subject argument of the main clause.

(17) *thopa=ma=**tsu*** *amundega=ja* *tsai*
stomach=ACC=DISC.3 damn=DEF bite
'The damned (dog) bit its (i.e. the agouti's) stomach.'

11. Note however that in subordinate clauses other constituents such as arguments and adjuncts have the same, pragmatically driven freedom as in main clauses.

Although discontinuity markers are not obligatory, they can only occur in main clauses. The impossibility of inserting discontinuity clitics can thus be seen as a defining property of subordinate clauses in Cofán.

4. Subordination stategies in Cofán

4.1 Introduction

Cofán subordinate clauses can be divided into two main types. The first type is balanced and marked by cliticized conjunctions, while the second type is deranked and marked by a special form of the dependent verb.

Regarding the first type, we consider the following markers either to be dedicated cliticized conjunctions (i), or to take over the function of cliticized conjunctions (ii):

i. subordination markers: =*'cho*, =*pa*, =*si*.
ii. case markers: =*ma* (ACC), =*ve* (ABST) and =*ni* (LOC); and definiteness markers: =*ja* (DEF) and =*ta* (INDEF).

All these markers fulfil the phonological criterion for clitichood, namely that they need to be attached to a host, with which they form a phonological word with a single stress peak, and do not alter the stress pattern of their host. Cliticized conjunctions appear attached to the verb of the subordinate clause because they attach to the last element of their base constituent, and subordinate clauses are obligatorily predicate-final.

Regarding the second type, we regard the following markers as creating special dependent verb forms: *-ye, -su,* and *-pa.* These markers occur in subordinate clauses that, unlike the first subordinate clause type, have (partially) lost the possibility to express verbal categories and/or to express their arguments as in independent clauses.

In what follows we present the various subordination strategies in Cofán in a semasiological way, starting with balanced constructions (Section 4.2), and following up with (more) deranked ones (Section 4.3). Within Section 4.2, we start with subordinate clauses that are marked with a dedicated cliticized conjunction: =*'cho* clauses (Section 4.2.1), which can be used as complement and relative clauses, and =*pa* and =*si* clauses (Section 4.2.2), which are used as adverbial 'after'-clauses. Subsequently, we discuss balanced subordinate clauses, which are marked by means of a case and/or definiteness marker (Section 4.2.3). These clauses are used as complement and adverbial clauses. Within the section on deranked

constructions (4.3), we start with *-ye* clauses (Section 4.3.1), which function as non-realized complements and purpose clauses, then we treat *-'su* participles (Section 4.3.2), which function as agent relative clauses, and finally *-pa* nominalizations (Section 4.3.3).

4.2 Balanced subordinate clauses

4.2.1 ='cho *clauses*

Subordinate *='cho* clauses can be used as arguments and adjuncts (as in (18) and (19) below) and as nominal modifiers (examples (20) and (21)). The subordinating conjunction *='cho* appears cliticized to the dependent verb for independent reasons of word order.

='cho clauses can be marked for all verbal categories. In example (19) below the dependent verb is marked for irrealis mood (*-ya*). In example (21) the dependent verb is marked for imperfective aspect (*-'je*).

All participants are expressed as in independent clauses, except the relativized one in relative *='cho* clauses, which is gapped (see (21) and (22)). In (18)–(21) the subject arguments, *ke* 'you (NOM)', *ingi* 'we (NOM)' and *ke'i* 'you all (NOM)', are all expressed as in the main clause (unmarked nominative). In (18) we also find a dative-marked recipient *ñanga* 'to me'.

When a *='cho* clause is used as an argument (18) or adjunct (19), its function must be marked with the appropriate case, which appears after the subordinator (cf. the clitic template in (13) above). This is illustrated by the accusative marker *=ma* in (18) and the source marker *=ne* in (19).

(18) *atesu-mbi [ke ña=nga tevaen]='cho=ma*
know-NEG you I=DAT write=SR=ACC
'I didn't know that you had written to me.'

(19) *[ingi kanse-ya]='cho=ne=ta=ti injenge-mbi kuintsu*
we live-IRR=SR=SOURCE=INDEF=INT important-NEG SWRCONJ
koenza=ndekhu o yaya=ndekhu tisu dushu=ndekhu=ma iyu'u-ye
elder=CLF(PL) or dad=CLF(PL) self child=CLF(PL)=ACC scold-INF
'Isn't it important for (how) we will live that the elders, or the parents reprimand their children?'

Note furthermore that relative *='cho* clauses may be pre-nominal (20) or post-nominal (21):

(20) *[[ke kanse]='cho ande]=nga=tsu napi-ya*
you live=SR land=DAT=DISC.3 arrive-IRR
'(It) will reach the country you live in.'

(21) *[yori-'ye [ke'i su-je]=**'cho**=ja]*
Yori-NOMPAST you.all say-IPFV=SR=DEF
'the late Yori you are talking about'

In addition, relative *='cho* clauses can be headless (see example (22) below), as well as internally headed (see example (23), where *kachapa=ma* 'parrot=ACC' is case-marked according to its function: patient of *aiña* 'domesticate'). Note that headless and internally headed *='cho* clauses are case-marked (elative *=ye* in example (22) and absentive *=ve* in example (23)) according to their function in the matrix clause.

(22) *… ji-'fa='ya [tisu-pa kanchana=me ñoña]=**'cho**=ye*
…come-PL=MIR self-COM ladder=ABST make=SR=ELAT
'… they came via that which they themselves had made into a ladder.'

(23) *…tise mama=ni ja~ja-'fa='ya*
…(s)he mom=LOC go~PL-PL=MIR
*[kachapa=ma tisepa aiña]=**'cho**=ve*
parrot=ACC they domesticate=SR=ABST
'… they went to their mother for the parrot they had domesticated.'

4.2.2 =pa *and* =si *clauses*

Clauses marked with *=pa* and *=si* express a (sequence of) event(s) that took place immediately prior to the event described in the main clause, and thus function as adverbial *after*-clauses (examples (24), (26), (27) and (28)). By semantic extension they can also express reason clauses (example (25)). The marker *=pa* (*=mba* after a nasal vowel) is used when the subject of the subordinate and the main clause have the same referent (examples (24), (26) and (28) below), while *=si* is used when they have a different referent (examples (24), (25), (27), and (28) below). Like *=cho,* these markers are cliticized conjunctions, which appear attached to the dependent verb for reasons of word order.

In *=pa/=si* clauses only aspect and number can be expressed, but not mood. In examples (25) and (27) we see that the dependent verb is marked for imperfective aspect (*-je*), and in example (28) for imminent completive aspect (*-ji*). In example (25) the subordinate verb is marked for number (plural marker *-'fa*). Note however, that the irrealis marker *-ya* is not expressed in *after*-clauses, presumably since the two are semantically incompatible. The event expressed in the subordinate clause takes place prior to the event expressed in the main clause, and therefore the former must always be realized before the latter can be realized. Since there are no other mood markers, the expression of the category of mood is in fact not overtly encoded.

Participants in *=pa/=si* clauses are expressed in the same way as in independent clauses. This is illustrated with the accusative case-marked patient arguments *tsesuma* 'that sort' in (24) and *du'shumaja* 'child' in (27), and the dative marked recipient *tsanga* 'them' in (25). The subject argument, being topical, is often not expressed in *=pa/=si* clauses, but it can be (see *matachi* in (28) below). In same-subject *=pa* constructions the subject, if overt, is expressed in either the main or the subordinate clause. In different-subject *=si* constructions, both subjects can be expressed, but may also remain unexpressed when they are topical.

(24) *[tse='su=ma afe-je]=**si** tse [ancho]=**mba** [avuja]=**pa** ta'nda-'fa*
that=ATTRB=ACC give-IPFV=DS then sew=SS be.happy=SS tie-PL
'After giving us that sort (of clothes), then (we) sewed (them), and were happy and put (them) on (lit. tied them).'

(25) *ño=e=tsu da-'fa [tsa=nga afe-'fa-mbi]=**si***
good=ADVR=DISC.3 become-PL ANA=DAT give-PL-NEG=DS
'They$_x$ were fine (=became well) because they$_y$ didn't give them (books).'

(26) *khoangi avujaki ñoa'me nani-ña tsa'ma*
two week really finish-IRR but
*[pa'kho a'ta tsa=nga=yi sema-je]=**mba***
all day that=DAT=RESTR work-IPFV=SS
'In two weeks you will really finish it, but after working all day on just that one.'

(27) *[du'shu=ma=ja isu-je atapa-ji]=**si** du'shu=ja in'jan-'fa='ya …*
child=ACC=DEF get-IPFV increase-IMMIN=DS child=DEF think-PL=MIR
'After she had more children, the (other) children wondered …'

(28) *[Khasheye=ndekhu=ja ñoña]=**si** te [matachi=ja tsa=ma ondikhu]=**pa***
old.man=CLF(PL)=DEF make=DS RPRT clown=DEF that=ACC wear=SS
tsa='ka=en=ja ko'fe='ya
that=CMPR=ADVR=DEF play=MIR
'Reportedly, after the elders made (the clothes), the matachi clown wore them and played like that.'

4.2.3 *Case and/or definiteness marked subordinate clauses*

4.2.3.1 *=ma* and *=ve* subordinate clauses

Clauses can be embedded in another clause just by attaching the case marker relevant to its function in the main clause directly to the subordinate clause,

without a dedicated subordinating conjunction. Since case markers attach to the last element of their base unit (see Section 3), and since subordinate clauses are always predicate-final, the case marker appears cliticized to the subordinate verb. The use of case-marked subordinate clauses is limited to *=ma* (accusative) marked complements (examples (29), (30), and (31)), and *=ve* (absentive) marked complements (example (32)).

In these subordinate clauses all verbal inflections can be expressed. This can be seen in the examples below, where the subordinate predicates are marked for irrealis mood (*-ya*) in (29), and imperfective aspect (*-je*) in (29)–(32).

Participants are expressed as in main clauses. Examples (30)–(32) illustrate the coding of participants in *=ma/=ve* clauses: the patient in (30) (*doscientos ochenta dolarma* '280 dollars (ACC)', the subject in (31) (*ingi* 'we (NOM)') and the dative marked adjunct in (32) (*tsesunga* 'in those').

(29) *tsa'ma [setha-je-ya]=**ma**=ki in'ja-mbi akhepa=sane*
but chant-IPFV-IRR=ACC=DISC.2 think-NEG forget=APPR
'You don't think you will be singing lest we forget.'

(30) *[doscientos ochenta dolar=ma gana-je-'fa]=**ma** in'jan kan-se.*
two.hundred eighty dollar=ACC earn-IPFV-PL=ACC think look-MIT
'Imagine they earn 280 dollars.'

(31) *[ingi paña-je]=**ma**=tsu dyojo-'fa afa-ye kokama=ngae*
we hear-IPFV=ACC=DISC.3 fear-PL speak-INF colono=MANN
a'i sheke=ni
person scatter=LOC
'They are afraid of us listening, of speaking Spanish when there are Cofans around.'

(32) *[tse='su=nga=ja ja-je]=**ve**=ja da-'fa='ya*
ANA=ATTRB=DAT=DEF go-IPFV=ABST=DEF become-PL=MIR
'They started going in those (helicopters).' (lit: 'They became coming in those.')

4.2.3.2 *=ni*, *=ni=ja/=ta* and *=ja/=ta* clauses

The locative case marker *=ni* and the definiteness markers *=ja* (definite) and *=ta* (indefinite) are used in different configurations in the formation of locative adverbial clauses. Locative clauses can refer to a certain time (location in time) or to a certain place (location in space).

Again, in these clauses the same verbal categories as in main clauses can be expressed. This is illustrated in examples (33) and (34) below, where the verb is

marked for imperfective aspect (-*'je*), and (35), where it is marked for irrealis mood (-*ya*).

Participants are also expressed as they are in main clauses. In examples (33) and (34) the subject is zero-marked for nominative, and in (33) and (36) the patient is accusative-marked.

As with other case/definiteness-marked clauses, in locative clauses the clitic combinations *=ni, =ni=ja/=ta and =Ø=ja/=ta*, are attached to the dependent verb for reasons of word order. There is no dedicated cliticized conjunction, so that the case/definiteness markers function as subordinators.

(33) *jingesu ja-ye [tsa a'i cerveza=ma chava-en-je]=**ni***
let's go-INF ANA person beer=ACC by-CAUS-IPFV=LOC
'Let's go to where that man is selling beer.'

In temporal location clauses a distinction is made between clauses that have the same subject as the matrix clause and those that have a different subject. In the latter situation, the subordinate clause is marked either with locative *=ni* only (as in (34)), or with *=ni* in combination with either *=ja* 'definite' (35) or *=ta* 'indefinite'. In contrast, when main clause and subordinate clause have the same subject, they are marked *only* with either *=ja* or *=ta* (37).

(34) *du'shu=ta=tsu [koenza paña-je]=**ni** afa-ya-mbi=tsu*
child=INDEF=DISC.3 elder hear-IPFV=LOC speak-IRR-NEG=DISC.3
'The children, when the elders are listening, will not speak (Spanish).'

(35) *ma=ni chhovi=pa kanse-ya [a'i=ja Lago=ni*
where pee(F)=SS live-IRR person=DEF Lago=LOC

*ja=si chhovi-an-ya]=**ni=ja**.*
go=DS pee(F)-CAUS-IRR=LOC=DEF

'Where will a Cofán woman pee when she goes to Lago and has to pee.'
(lit. something will make them pee)

(36) *[tovo=ma tin tin tin khen ochhi]=ni=ja jangi=pa*
pipeline=ACC ONOM so knock=LOC=DEF get.up=SS

sema-je=khia'ka=en tson
work-IPFV=CMPR=ADVR do

'When (someone else) knocks "tin tin tin" like that on the tube, and the other one, after getting up, acts as if he is working.'

(37) *tsa='ka=mba=tsu* *tsa=ja* *su-ya='ya*
ANA=CMPR=SS=DISC.3 ANA=DEF say-IRR=MIR
[yaje=ma *otaen-je]=**ta*** *seji-a-'ngi-'fa-ja*
yaje=ACC cook-IPFV=INDEF heal-CAUS-DIR<-PL-IMP
'That's why (being like that) he would say, when he was cooking yaje,
"Come here to be healed …" '

4.3 Deranked subordinate clauses

4.3.1 -ye *clauses*

The infinitive marker *-ye* is used to mark subordinate clauses that function as non-realized complement clauses and as purposive clauses.

When functioning as a complement, a *-ye* clause can be the object of predicates such as *ashaen* 'start', *tson* 'going to', *atesu* 'know how to, tend to', *in'jan* 'want, wish, request', *ñombiye* 'long for', and *asithaen* 'think, believe'. *-ye* complement clauses differ semantically from *='cho* complements in that the former express non-realized situations, whereas the latter express realized situations (see also Fischer 2007).

Moreover, we analyse the marker *-ye* as creating a special form of the dependent verb, in contrast with the conjunctions and case/definiteness markers discussed in the previous subsection, which were argued to cliticize to the dependent verb only because of word order. The reason for this difference in analysis is that the *-ye* marker, as opposed to cliticized conjunctions, does alter the internal structure of the subordinate clause.

In particular, of the verbal categories only (imperfective) aspect can be expressed in *-ye* clauses, as is illustrated in example (40) below. As regards participant coding, both arguments can be expressed in the same way as in independent clauses (see the subject *ingi* 'we (NOM)' and the patient argument *informema* 'report (ACC)' in example (39), and the subject and patient arguments *ña* 'I (NOM)' and *keve* 'for you' in example (40) below). However, when the subject of the subordinate clause is co-referential with the subject of the matrix clause, it remains unexpressed, as is shown in example (38).

(38) *micomba=tsu* *[munda=ja* *ji-**ye**]* *atesu*
why=DISC.3 peccary=DEF come-INF know
'Why do peccaries tend to come (lit. know to come)?'

(39) *texaco* *abogado=tsu* *iñaja='ña* *kuintsu*
Texaco lawyer=DISC.3 request=MIR SWRCONJ
[ingi=ja *informe=ma* *afe-**ye**]*
we=DEF report=ACC give-INF
'Texaco's lawyers requested that we give them a report.'

(40) *konda-ja ke osha=ta fecha=ma, jongoesu a'ta=ki*
tell-IMP you be.able=INDEF date=ACC what day=DISC.2
*napi-ya, [ña ke=ve ro'nda-je-**ye**]*
arrive-IRR I you=ABST wait-IPFV-INF
'Tell (me) if you can the date, what day you will arrive so I will be waiting for you.'

Clauses marked with *-ye* are (like locative clauses and *=pa/=si*-clauses) subject to a system of switch-reference. Topical constituents (often subject arguments) are usually dropped in Cofán main and subordinate clauses. In same-subject constructions, the subject is not expressed in the dependent clause (see example (41) below).

(41) *rafe=tsu ja Quito=ni [sarupa=ma chava-**ye**]*
Rafael=DISC.3 go Quito=LOC clothes=ACC buy-INF
'Rafael went to Quito to buy clothes.'

In different-subject constructions there are three options: (i) the subject is expressed in the subordinate clause (42), (ii) a special switch-reference conjunction, *kuintsu*, must be used (43), or (iii) both (see example (39) above).

(42) *ña=nga afe-'fa-ja [ña kata-**ye**]*
I=DAT give-PL-IMP I cast-INF
'Give me (the spear) so that I can cast (it).'

(43) *afe kan-ja kuintsu [kata-**ye**]*
give look-IMP SWRCONJ cast-INF
'Give (the spear to him) so that he can cast (it).'

4.3.2 -'su *clauses*

Clauses marked with *-'su* function as agent relative clauses. We analyze *-'su,* like *-ye,* as creating a special dependent verb form, more specifically a participle (glossed as PTC), because it affects the internal structure of the subordinate clause.

None of the verbal inflectional categories expressed in main clauses can be expressed in *-'su* clauses. Participants, however, are expressed in the same way as in main clauses, except for the relativized agent, which is gapped. The expression of participants is illustrated in (44) where the patient of the subordinate clause, *ingima* 'we (ACC)' carries the accusative marker. Likewise, *ingimbe* 'for us (BEN)' in (45) carries the beneficiary marker *=mbe* and is not expressed as a nominal modifier (possessor), as can be seen in the translation of that example. When *-'su* relative clauses have a nominal head, then they precede it, as in (44). However, they are also often headless, rendering the equivalent of agent nominalizations, as in (45).

(44) *[ingi=ma atesian-**ʻsu**] pushe'su*
we=ACC teach-PTC woman
'the woman that teaches us' (=our teacher)

(45) *[ingi=mbe sema-**ʻsu**]=ndekhu*
we=BEN work-PTC=CLF(PL)
'people that work for us' (=our workers)

-ʻsu relative clauses differ from *=ʻcho* relative clauses in that the former allow for agent relativization only, whereas in the latter NPs with various functions can be relativized.

4.3.3 -pa *nominalizations*

-pa nominalizations are action nominalizations and constitute the most deranked of the subordination strategies treated in this paper.[12] No verbal inflectional categories can be expressed in this construction. Moreover, this is the only type of subordination where participants are expressed as attributive (attributive marker *-ʻsu*)[13] or possessive (zero-marked) nominal modifiers. The latter occurs with patient arguments, as illustrated in example (46) below, where *avu* 'fish' is expressed as a possessor (zero-marked), rather than taking the accusative case (*=ma*) that marks patient arguments in main clauses. Location adjuncts are also expressed differently: in main clauses they take the locative case marker *=ni*, but in *-pa* nominalizations they are expressed as attributive modifiers. This is illustrated in example (47) below. Participants other than agents, patients and locations cannot be expressed in *-pa* nominalizations.

Nominalized forms with *-pa* are case marked according to their function in the matrix clause.

(46) *[avu=**Ø** [fuchha-**pa**]]=ve=tsu ji*
fish=POSS scrape-NMLZ=ABST=DISC.3 come
'He came for the scraping of fish.'

(47) *[va ande-**ʻsu** [kanse-**pa**]]=ve=gi in'jan*
this land-ATTRB live-NMLZ=ABST=DISC.1 think
'I like the life (its culture and habits) of this land.'

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12. Note that formal similarity with the *after*-clause marker *=pa* is purely coincidental.

13. This is the same marker as the participial marker *-ʻsu* discussed in the previous section. This marker can also appear on NPs, thus allowing them to function as attributes to a nominal head.

Note that, since main clause subjects and possessive modifiers make use of the same marking (zero), it is not possible to say whether *kokama* 'colono' in (48) below is expressed as a main clause argument or as a possessive modifier.

(48) *[kokama=Ø kanse-pa]=tsu ega*
colono=NOM/POSS live-NMLZ=DISC.3 bad
'The colono's life (culture/habits) is bad.'

As already mentioned, *-pa* nominalizations are action nominalizations: they describe an event in a generic way, and have the same distributional properties as regular NPs.

4.4 Summary

In Table 1, we list the subordinate clause constructions discussed in this section, summarizing their functions and their formal properties in terms of expression of verbal inflection, participants and case/definiteness marking.

Table 1. Cofán subordinate clause constructions

Type	Marker	Function	Form		
			Verbal inflection	Sentential participant coding	Case/ definiteness
Balanced	*=cho*	Realized complement and (headless) relative clauses	+	+ (gapping)	+
	=pa/=si	adverbial 'after' clauses	+ (no irrealis mood marking)	+ (subject Ø)	–
	=Ø	Complement and adverbial location (time/place) clauses	+	+	+
Deranked	*-ye*	Non-realized complement and purpose clauses	± (aspect only)	+ (subject Ø)	–
	-'su	(headless) relative clauses	–	± subject Ø	+
	-pa	action nominalizations	–	–	+

5. Discussion of the data from a typological perspective

In Section 2 we introduced the basic formal parameters for cross-linguistic comparison of subordination strategies, the attested cross-linguistic generalizations

concerning these formal features, and the explanations proposed for them. Having presented the relevant Cofán data in Section 4, we are now in a position to evaluate these data from a typological perspective. For reasons of exposition, we will first address the coding of the participants in Cofán subordinate clauses (Section 5.2), then the marking of the verb (Section 5.3), and finally the expression of case and definiteness (Section 5.4).

5.1 The coding of the participants

We observe from the data in Section 4 that in most Cofán subordinate clause types overt participants are coded in the same way as in independent clauses. In *=ʻcho* complement clauses, *=pa/=si* clauses, case- and definiteness-marked subordinate clauses, and *-ye* clauses all participants can be expressed using the same grammatical means as in independent clauses.

In relative *=ʻcho* clauses and *-ʻsu*-clauses (agent relative clauses) the relativized argument remains unexpressed under co-referentiality with an argument of the matrix clause (gapping), but any other participants are expressed as in independent clauses. Also, in *=pa/=si* clauses and in *-ye* clauses the subject argument can be left unexpressed when it is co-referential with the subject of the main clause or when it is topical.

The only subordinate clauses in Cofán in which arguments are expressed as possessive or attributive modifiers are *-pa* nominalizations. However, since both possessives and subject arguments are zero-marked in Cofán, there is no formal distinction between subjects coded as in independent clauses and possessive marked subject arguments in *-pa* nominalizations. A difference is visible only for patient arguments (which take the accusative marker *-ma* in independent clauses), or when location adjuncts are expressed as nominal modifiers. This shows that possessive coding of arguments does not always provide a useful tool for categorizing subordinate clause strategies in individual languages.[14]

5.2 The coding of the verb

Regarding the expression of verbal categories in Cofán subordinate clauses, we observe three different types: (i) subordinate clauses in which the same categories can be expressed as in independent clauses; (ii) subordinate clauses

14. See Koptjevskaja-Tamm (1993) for examples of other languages in which there is no formal difference between main-clause and possessive coding of arguments.

in which some verbal categories may be expressed, while others are lost; and (iii) subordinate clauses in which no verbal categories can be expressed. Case-marked and definiteness-marked subordinate clauses, *=ʻcho* clauses, and *=pa/=si* (*after*-)clauses belong to the first type. In *-ye* clauses imperfective aspect can be expressed, but no other verbal inflection. Therefore, they belong to the second type. Finally, *-ʻsu* relative clauses, and *-pa* nominalizations belong to type (iii) (see also Table 1).

It may be noted once more that Cofán does not have a very extensive array of inflectional distinctions on the verb: there is only overt marking of imperfective and imminent completive aspect and of irrealis mood. Moreover, Cofán does not express verbal agreement. Because of this small amount of verbal inflection, the notion of finiteness is relatively unhelpful in distinguishing between main and subordinate clauses in Cofán, or between various types of subordinate clauses.[15] As discussed in Section 3, the possibility to contain focus clitics and obligatory predicate-final word order seem to be, from a purely language-internal perspective, more suitable criteria, at least for distinguishing between main and subordinate clauses.

As regards the use of overt morphemes attached to verbs in deranked subordinate clauses, we argue that the infinitive/purpose marker *-ye*, the participial marker *-ʻsu* and the nominalizer *-pa* qualify as such: they go together with an additional deranking strategy in the form of (partial) loss of verbal categories and/or with non-expression or possessive/attributive expression of argument(s).

In our analysis, the other subordination markers, namely *=ʻcho* and *=pa/=si*, are cliticized conjunctions, and case and definiteness markers can also function as cliticized conjunctions when no dedicated subordinator is present. Recall from Section 2.4 that, according to Cristofaro, in order for a marker to be analyzed as a cliticized conjunction, it must be clear (i) that the marker appears on the dependent verb for independent reasons, and (ii) that the subordinate clause in which it appears is balanced.

Regarding point (i), we have shown in Section 3, on the basis of noun phrases, that case/definiteness markers in Cofán attach to the final element of their base constituent, independent of the categorial status of that element. For *=ʻcho* and *=pa/=si* such evidence is not available, since these markers do not occur outside subordinate clauses, and there are no subordinate clauses in which the final element is *not* a verb. Nonetheless, we have adduced independent evidence for the clitichood of these markers (see Section 3 and 4.1).

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15. Cf. Koptjevskaja-Tamm (1994) and Cristofaro (2007) for a general discussion of finiteness from a cross-linguistic perspective.

More importantly, regarding point (ii), the subordinate clauses on which *='cho, =pa/=si*, and case/defniniteness markers appear are balanced, i.e. they do not differ structurally from independent clauses, at least if case/definiteness is regarded as an external feature rather than as a deranking strategy. In Section 2 we explained that Cristofaro (2003) regards case marking as a reflection of categorial shift on the part of the dependent verb, while Malchukov (2004) does not. This issue is of crucial importance to our argument, and we will discuss it in detail in the following subsection.

5.3 The expression of case

Cofán *='cho* clauses present a counterexample to Cristofaro's typological implication given in (3a) above, namely that case marking implies loss of verbal categories. The same holds for those subordinate clauses in Cofán, which are marked by means of case/definiteness only.

As mentioned in Section 2.3, in order to explain the expression of case in subordinate clauses, Cristofaro appeals to cognitive construal of subordinate clauses as things rather than processes: "The dependent verb displays the same properties as the grammatical entities that prototypically code things, that is, nouns." (Cristofaro 2003: 162–263). Malchukov (2004), on the other hand, explains the expression of case in terms of the pragmatic-syntactic function expressed by subordinate clauses, namely the function of a referential argument. Case and definiteness markers are relevant to this function, and may therefore appear on any type of construction that fulfils it. The fact that referential arguments are prototypically expressed by case-marked nouns (or NPs) does not warrant the conclusion that other case-marked constructions expressing the same function are automatically nominalized. To the contrary: Malchukov's study shows that case marking is an external feature that may leave the verbal structure of the subordinate clause unaffected. Thus, the particular subordinate clause construction attested in Cofán, namely case marking on otherwise fully balanced clauses, fits in with Malchukov's typology and the functional explanation he proposes for it.

Note that, in principle, case marking of the entire subordinate clause does not conflict with Cristofaro's cognitive explanation. However, the fact that case marking in Cofán appears on subordinate clauses which retain all verbal features does pose a problem: as explained in Section 3.2, the thing- construal of subordinate clauses presupposes non-processual construal, which in turn excludes the expression of verbal categories that are relevant to processes, i.e. TAM/AGR distinctions. This explanation cannot account for the Cofán data.

Apart from the fact that it is empirically inadequate, we disagree with Cristofaro's cognitive explanation of thing construal on a more general level, namely because there seems to be no independent evidence for it. Cristofaro argues that:

> [I]t appears reasonable to assume that the *fact* that a dependent state of affairs is construed as a unitary whole […] may lead to conceptualization of this state of affairs as a thing, because things too are scanned summarily and construed as a unitary whole. (Cristofaro 2007: 101, emphasis added RF&EL).

We argue that the italicized *fact* in this quote is not really a fact. According to Cristofaro, the pattern of co-occurrence between the expression of case and the coding of arguments as possessors can be regarded as evidence for thing-construal. However, this argument appears to suffer from circularity, since the principle of object construal was invoked in the first place to *explain* such co-occurrence patterns.

6. Summary and conclusion

In this paper we have evaluated various subordination strategies in Cofán in light of formal parameters used in typological studies of subordination. We have argued that *='cho* and *=pa/=si* are cliticized subordinating conjunctions, while *-ye*, *-su* and *-pa* create special dependent verb forms. The clauses on which cliticized conjunctions appear are fully balanced, except for case/definiteness marking, which we argue to be external markers which do not reflect categorial shift of the dependent verb. In contrast, the clauses in which *-ye*, *-su* and *-pa* appear are deranked in terms of expression of verbal categories and/or participant coding. The fact that cliticized conjunctions appear on the dependent verb is independently motivated in terms of word order.

The attested patterns present a problem for Cristofaro's generalization that case marking involves loss of verbal properties, as well as for the cognitive explanation behind this generalization. The pattern does fit in with Malchukov's typology of nominalization.

On a more general note, this paper illustrates some potential problems involved in the application of cross-linguistic formal criteria to language-specific constructions. The small amount of verbal inflection in Cofán, as well as the lack of formal difference between verbal (nominative) versus nominal (possessive) coding of subject arguments, reduces the relevance of these typological criteria for a description of subordination in Cofán.

Abbreviations

ABST	absentive case marker
ACC	accusative case marker
ADVR	adverbializer
AFFEC	expresses affection towards referent
ANA	anaphoric pro-form
CMPR	comparative
DAT	dative case marker
DEF	definiteness marker
DIM	dimminutive marker
DIR<	action performed towards speaker
DIR>	action performed away from speaker
DISC.1	discontinuity marker (1st person subject referent)
DISC.2	discontinuity marker (2nd person subject referent)
DISC.3	discontinuity marker (3rd person subject referent)
DS	different subject marker
EQT	equative marker (not case)
INDEF	indefiniteness marker
INF	infinitive marker
INSTR	instrumental case marker
IMMIN	imminent completive aspect
INT	interrogative marker
IPFV	imperfective aspect
IRR	irrealis mood
STAT	stativizer
LOC	locative case marker
MANN	manner case marker
MIR	mirativity marker
MIT	mitigated imperative
NEG	negative polarity
NMLZ	nominalizer
NOM.PAST	nominal past marker
ONOM	onomatopoeic word
PL	plural marker (plural subject referent)
PTC	participle
RESTR	restrictive marker ('only')
SBSTR	substantivizer
SOURCE	source case marker
SR	subordinator
SS	same subject marker
SWRCONJ	switch-referent conjunction
IMP	imperative

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Relative clauses in Ecuadorian Quechua

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In this paper an attempt is made to analyze some of the strategies used in Ecuadorian Quechua to form relative clauses. The focus in the paper lies on the interaction between tense specification and specification of grammatical relations within the nominalized relative clause in several varieties of Ecuadorian Quechua. This interaction is modeled within the framework of Optimality Theory.

1. Overview

This paper constitutes an attempt to analyze some of the strategies used in Ecuadorian Quechua, also termed Quichua, to form relative clauses.[1] The focus in the paper lies on the interaction between tense specification and specification of grammatical relations within the nominalized relative clause in several varieties of Ecuadorian Quechua.

There are a number of strategies to form relative clauses in Quechua (cf. Lefebvre & Muysken 1982), such as wh-questions (1), nominalizations (2), appositions (3), repetitions, or a combination of these patterns. In the following examples square brackets mark the relative clause, and slashes indicate alternative forms or translations.

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1. This paper is partly and indirectly based on an unpublished paper of mine written in April 1976 while carrying out my fieldwork in Salcedo, Cotopaxi, Ecuador (Muysken 1976). However, it also includes the analysis of published data not available at that moment, cited in the examples. The theoretical apparatus needed to make the relevant generalizations did not exist, and one of the central insights of the original paper could not be expressed very well with the mechanisms known at that moment, but finds a natural expression in the framework of Optimality Theory. I am grateful to my original consultants, particularly Martina Masaquiza, to my Nijmegen colleague Peter de Swart for his comments, and to an internal and external reviewer for the volume for many useful suggestions.

(1) **Wh-relative**

a. Tigua, Ecuador (fieldwork notes)
may-bi-di *kuchillu* *[ima-un-di* *aycha-da* *p'iti-rka-ngi]*
where-LOC-EMPH knife what-WI-EMPH meat-ACC cut-PA-2
'Where is the knife with which you cut the meat?'

b. Ecuadorian Quechua (Grimm 1896: 5)
[ima-shina *kawsa-ngi],* *chasna* *wañu-ngi*
what-like live-2 that.like die-2
'The way you live, that way you will die.'

(2) **Nominalized relative**

a. Cuzco, Peru (fieldwork notes)
[kay-man *hamu-q]* *runa* *ruwa-nqa*
this-to come-AG man do-3FUT
'The man who comes here will do it.'

b. Bolivia (Urioste & Herrero 1955)
[runtu-s *apa-mu-sqa-yki]* *sumachej* *ka-nku*
egg-PL take-CI-NOM-2 good be-3PL
'The eggs you bring/brought are good.'

(3) **Relative formed by apposition** (adapted from Santo Tomás, 1560)
Pedro *puri-rqa,* *[pay-pas* */chay-pas* */quiquin-pas* *miku-rqa]*
Pedro walk-PA he-IND /that-IND /same-IND ate-PA
'Pedro walked, the one who ate.'

These three alternatives do not have equal status. Appositive relatives are frequent, but nominalized relatives are very widely attested as well. Relatives formed through Wh-forms have often been assumed to be a grammatical feature in Quechua taken from Spanish, but we find some very early attestations, casting doubt on this assumption. It may well be that originally only correlatives were formed with Wh-forms and that the frequency of use of ordinary relatives is currently higher in varieties much affected by Spanish, such as Bolivian Quechua.

Turning now to the category of nominalized relatives, our focus in this paper, headless (4), headed (5), and internally headed relative clauses (6) may be found:

(4) **Headless**
Ecuador (fieldwork Salasaca)
Kutin *[Quitu-da* *manda-k]-ga* *Rumiñahui* *ga-rka*
again [Quito-ACC command-AG]-TOP Rumiñahui be-PA
'Again, the person commanding Quito was Rumiñahui.'

(5) **Headed**
Ecuador (fieldwork Salasaca)
[kayna *shamu-k]* *runa-ga* *ñuka* *tiyu-mi*
yesterday come-AG man-TOP 1S uncle-AF
'The man that came yesterday is my uncle.'

(6) **Internally headed**

Ecuador (fieldwork Salasaca)

[kaya k'ari shamu-k]-ka kura-mi
[tomorrow man come-AG]-TOP priest-AF
'The man who will come tomorrow is a priest.'

In this paper, only nominalizations with an external head, as in (5), will be further considered, not so much because the other types are not interesting but because of the paper's focus, which is the choice of marking tense or grammatical relation with the nominalizing suffixes.

Nominalization in Ecuadorian Quechuan relative clauses replaces verbal expression of tense and person. Which of these categories is recovered is determined by the choice of the nominalizer morpheme, but there is a tension between the number of nominalizing morphemes and the number of values of the two categories to be recovered. The basic issue is one of priorities: there are three tenses that are potentially distinguished (past, present, future), and a grammatical distinction is often made between subject and non-subject relative clauses, yielding six potentially distinguishable categories. However, in Ecuadorian Quechua three nominalizers play a role in relative clause formation: *-na*, *-shka*, and *-k*, so the question is, what is most important: marking the tense or marking the grammatical relation inside the relative clause? This choice question is further brought into relief because in Ecuadorian Quechua person markers in nominalized clauses, which can help distinguish the different participants in the relative clause in other Quechua varieties, are absent.

To deal with this choice question, first in Section 2 the basic nominalizing suffixes will be described that occur in Quechua, following the sketch of the northernmost variety, Imbabura, in Cole (1982). In Section 3 the dialect variation will be presented characterizing Ecuadorian Quechua in this respect. Section 4 attempts to provide a theoretical analysis of the patterns found in terms of Optimality Theory, and Section 5 draws some preliminary geographical and historical conclusions.

2. The basic nominalizing suffixes and relative clause formation in Imbabura Quechua

Given the dominant role of this particular variety among the dialects of Ecuadorian Quechua and the frequent reference made in the typological literature, I will start with a description of the northernmost variety of Ecuadorian Quechua, Imbabura Quechua. In Cole (1982: 47) the following analysis is given of relative clauses in

Imbabura Quechua. Three nominalizers are involved (spelling adjusted), marking three tenses:

(7) *-shka* 'past'
-k 'present'
-na 'future'

Cole suggests that these temporal distinctions are crucial to the use of these affixes, rather than grammatical relation:

(8) a. *[Marya riku-shka] runa* **past**
María see-NOM man
'the man whom María saw'

b. *[Marya riku-k] runa* **present**
María see-AG man
'the man whom María sees'

c. *[Marya riku-na] runa* **future**
María see-NOM man
'the man whom María will see'

Since nominalizers primarily mark tense, relative clauses may be ambiguous (Cole 1982: 49):

(9) *[Juan juya-shka] warmi*
Juan love-NOM woman
'the woman Juan loved'
'the woman who loved Juan'

Only in internally headed relative clauses does the nominalizer mark grammatical relation:

(10) a. *[wambra wagra-ta randi-shka] ali wagra-mi*
boy cow-ACC buy-NOM good cow-AF
'The cow which the boy bought is a good cow.'

b. **[wambra wagra-ta randi-k] ali wagra-mi*
boy cow-ACC buy-AG good cow-AF
'The cow which the boy buys is a good cow.'

In (10b) the marker *-k* is not permitted since it is not the subject that is being relativized but rather the object. Thus in internally headed relative clauses grammatical relations are indeed recoverable.

3. Dialect variation in Ecuadorian Quechua relative clauses

3.1 Preliminary remarks

The picture for the different Ecuadorian dialects that I carried out fieldwork on myself is far from neat. Theoretically, the following extreme possibilities exist, which I will label Models.

The **Tense Model** (as in Cole's description of Imbabura Quechua) predicts a three-way vertical split along Tense lines with the three nominalizers, as indicated above (cf. Table 1).

Table 1. Schematic representation of the Tense Model

Past +su **-shka**	Present +subj. **-k**	Future +subj. **-na**
Past −subj. **-shka**	Present −subj. **-k**	Future −subj. **-na**

Thus there is no role for the grammatical relations in the Tense Model.

The **Grammatical Relations Model** would primarily predict a two way split between subject relatives (formed with the subject-oriented nominalizer *-k*) and non-subject relatives (formed with *-shka* or *-na*). The suffix *-na* would be associated with future tense (or unrealized) non-subject relatives, and *-shka* with past tense (or realized) non-subject relatives. Present tense non-subject relatives could be formed either with *-na* or with *-shka*. Notice that in this Model tense does play a role, but it is secondary to grammatical relations (see Table 2).

Table 2. Schematic representation of the Grammatical Relations Model

Past +su **-k**	Present +subj. **-k**	Future +subj. **-k**
Past −subj. **-shka**	Present −subj. **-shka** or **-na**	Future −subj. **-na**

Consider now how these Models relate to the actual varieties. At the time I was collecting data, I was not systematically charting the various possibilities, and therefore there are some gaps in my fieldwork materials for different varieties. However, they do provide a detailed impression of the possibilities found.

In Figure 1 I schematically represent the geographical distribution of the varieties mentioned in the course of the following discussion (arranged from north to south):

Figure 1. Schematic representation of the geographical distribution of the varieties of Ecuadorian Quechua discussed

On the whole they can be arranged from north (top) to south (bottom) following the Callejón Interandino, the valley between the two principal Andean ridges. Arajuno lies beyond the Andean ridge in the lowlands, but is linked to the highlands via a long river valley.

3.2 Historical sources for Ecuadorian Quechua and the situation in other Quechua varieties

Ecuadorian Quechua emerged as a separate Quechua variety in the Incaic (15th century) and Colonial (16th–18th centuries) periods, and is based on transplanted Peruvian varieties, mostly from southern Peru. As far as I can see,

the situation in Peruvian Quechua varieties is that, like in Ecuador, basically three different nominalizers are involved (Cerrón Palomino 1987; Weber 1976), roughly the equivalents of *-k*, *-na*, and *-shka*. Central Peruvian varieties also have the marker *-nqa*. In these central varieties, particularly Wanka (Cerrón Palomino 1987: 310) the Tense Model plays a role, while in the Southern Peruvian Quechua varieties and in Ancash the Grammatical Relations Model is dominant. However, a much more detailed study would be needed to establish the precise distinctions per dialect.

Given this background, historical sources for Ecuadorian Quechua present the following picture. The source best known as Nieto Polo (orig. 1753) follows the Tense Model and suggests that if the clause is non-preterite, *-k* is used (11), and if it preterite, *-shka* is used (12) (1964: 83):

(11) *Dios-ta cuya-c runa, alli huañu-nga-mi*
God-ACC love-AG man good die-3FUT-AF
'The man who loves God will die well.'

(12) *hucha-lli-shca runa, mana ucu-pacha-man ri-nga-pac*
sin-INV-NOM man not under-world-to go-NOM-BEN
huacha-cuna-ta huaca-nga-mi
sin-PL-ACC cry-3FUT-AF
'The man who has sinned will bemoan his sins in order not to go to Hell.'

However, non-subject relatives are not presented in this source.

Paris (orig. 1892), best acquainted with the Quechua dialect of Chimborazo, presents a mixed picture (1993: 54). In (13) *-shka*, written as *-shca*, is used for a non-subject relative with future reference:

(13) *[ñucanchic mallqui-shca] yura-cuna pamba-ta sumac-ya-chi-nga-mi*
1PL plant-NOM tree-PL field-ACC pretty-DEV-CAUS-3FUT-AF
'The trees that we will plant will make the field more beautiful.'

This would suggest the Grammatical Relations Model (with a split between *-k* for subject and *-shka* for non-subject relatives), but in (14) *-shka* is used for a subject past tense relative:

(14) *caina urma-shca tamiai ñan-cuna-ta turu-ya-chi-rca*
yesterday fall-NOM rain road-PL-ACC slip-DEV-CAUS-PA
'The rain that fell yesterday made the roads slippery.'

The example in (14) is only compatible with the Tense Model.

Thus the historical sources, which have various, and unspecified, dialect backgrounds, are not unambiguous about the Model followed. Before turning to specific dialects, I should mention that there is yet another type of relative clause

not taken into consideration in the description: negative indefinite relative clauses of the type in (15), formed with the nominalizer *-nga* (taken from Calderón Quechua, but existing in most other varieties as well), which corresponds to the earlier mentioned *-nqa*:

(15) *ñuka mana kuchillu-ta charini-chu ima-un kuchu-nga-k*
1SG not knife-ACC have-NEG what-WI cut-NOM-BEN
'I do not have a knife with which to cut.'

The only variety where I did not encounter this *-nga* is Saraguro in the extreme south, where *-na* is used in this type of clause:

(16) *ñuka mana kwadernu-ta charini-chu may-pi killka-na-ta*
1SG not notebook-ACC have-NEG where-LOC write-NOM-ACC
'I do not have a notebook in which to write.'

Notice that here the nominalizer *-na* replaces *-nga* and an accusative (agreeing with the non-possessed direct object) is used instead of a benefactive.

3.3 Salcedo and Tigua Quechua

Consider first my data for Salcedo and Tigua Quechua, both spoken in the province of Cotopaxi. A schematic overview of the possibilities encountered is Table 3, where the numbers given correspond to tokens in my data set for this variety. In the data set analyzed here, primarily elicited examples have been included. In a few cases, examples from narratives have been included as well.

Table 3. Representation of the relative clause data for Salcedo and Tigua Quechua

Past +subj.	Present +subj.	Future +subj.
-shka 3	**-k** 7	**-na** 1
-k 2	**-shka** 1	
	-na-k 1	
Past −subj.	Present −subj.	Future −subj.
-shka 13	**-shka** 4	**-na** 2
	-na 2	

This schema presents a number of special features. First of all, the form with *-na-k*, combining two nominalizers, is striking:

(17) *[shuk llakta-munda kutin shuk llakta-mun ri-na-k]*
[one town-AB again one town-DAT go-NOM-AG]
ñan-guna kay Sierra-bi-ga hawa ñan-mi ga-rka
road-PL this highland-LOC-TOP high road-AF be-PA
'The roads that go from one town to another in this highland were the high ways.'

There is no future reference here. The indefinite marker *-na* may be thought as contributing some form of timelessness to the relative clause.

A similar effect occurs in the two examples with *-na* where it has present tense reference with non-subject relatives:

(18) *[polvo-da rura-na] obraje*
[gunpowder-ACC make-NOM] workshop
'a workshop where they make gunpowder'

(19) *aya tullu-guna [latero laya kunga-bi apari-na]-guna-ma-da-mi*
old bone-PL [ornament like neck-LOC wear-NOM]-PL-EMPH-ACC-AF
'the bones of the ancestors worn like ornaments around the neck'

Here there is an enduring state, which includes the present. It turns out that habitual is often linked to the irrealis cross-linguistically (Givón 1994: 304–310).

In terms of the two Models, Salcedo and Tigua Quechua approximate the Tense Model somewhat, except that there are no present tense non-subject relatives with *-k*, as predicted for Imbabura Quechua in Cole's analysis. Thus it appears to be intermediate between the two Models.

3.4 Salasaca Quechua

Consider now the data for Salasaca Quechua, a variety spoken not very far from Salcedo, in the province of Tungurahua. This variety approximates the Grammatical Relations Model most closely, since *-k* can be used for all subject relatives, see Table 4:

Table 4. Representation of the relative clause data for Salasaca Quechua

Past +subj.	Present +subj.	Future +subj.
-k 1	**-k** 2	**-k** 3
-shka 1		**-na** ?1
Past −subj.	Present −subj.	Future −subj.
-shka 6	**-shka** 10	**-na** 6
	-k 2	**-shka** 1
	-na 1	

A few special features of Salasaca merit discussion. First, we find occasional use of *-shka* in future contexts, in which case an inchoative aspect marker *-gri-* appears with the nominalizer:

(20) *chi [inglis-ta yacha-chi-gri-shka] wambra-guna may-bi tiya-n*
that [English-ACC know-CAUS-INC-NOM] child-PL where-LOC be-3
'Where are the children that you are going to teach English?'

The use of *-k* with non-subjects is limited to locative relatives, as in (21), where *llakta* 'town, land' is relativized:

(21) *[sara illa-k] llakta-mu ri-gu-nchi*
[corn not.be-AG] country-DAT go-PR-1PL
'We are going to a land where there is no corn.'

3.5 Arajuno (Tena) Quechua

In the foothills variety of Arajuno (Tena) Quechua, for which some data are lacking, it is clear that in subject relatives, often *-k* appears, though not in future contexts (see Table 5).

Table 5. Representation of the relative clause data for Arajuno (Tena) Quechua

Past +su	Present +su	Future +su
-k 5	**-k** 6	**-nga ra-u-k** 1
-shka 1		**-na** 2
Past –subj.	Present –subj.	Future –subj.
-shka 6		**-na** 1

The periphrastic form *-nga ra-u-k* makes use of the auxiliary *ra-* 'do', combined with an agentive marker, to indicate a future subject relative:

(22) *[kaya shamu-nga ra-u-k] runa ñuka tiyu-mi*
[tomorrow come-NOM do-PR-AG] man 1SG uncle-AF
'The man who will come tomorrow is my uncle.'

Notice that in this periphrastic form the use of *-k* in a subject relative is maintained.

3.6 Calderón Quechua

A final set of data, presented in Table 6, comes from Calderón Quechua, a variety spoken not far from Imbabura, the variety described by Cole (1982).

Table 6. Representation of the relative clause data for Calderón Quechua

Past +subj.	Present +subj.	Future +subj.
-shka 2	**-k** 5	**-na** 3
-k 2		
Past –subj.	Present –subj.	Future –subj.
-shka 3		**-na** 1

On the whole, this variety appears to follow the Tense Model, as in Cole's account of Imbabura. There are two cases involving a *-k* relative clause with past tense reference, as in (23), I assume past reference here on the basis of the original translation given by the informant.

(23) *na-chu [chi warmi pishka atil randi-k-ta] riku-ra-ngi*
not-Q [that woman five chicken buy-AG-ACC] see-PA-2
'Did you not see that woman who bought five chickens?'

However, both cases involve an internally headed relative clause, a type which Cole claimed does not follow the Tense, but rather the Grammatical Relations Model.

4. Theoretical analysis in terms of Optimality Theory

4.1 Three main dialect areas

Altogether, the data presented so far give a rough division into three types of dialects:

(24) a. Tense Model: Imbabura and Calderón (Table 6)
b. Intermediate Model: Salcedo and Tigua (Table 3)
c. Grammatical Relations Model: Salasaca and Arajuno (Tables 4 and 5)

This classification needs to be treated with some caution, since in many varieties exceptional examples exist and there are some further complications. However, (24) reflects the overall tendency in the data available to me.

4.2 A theoretical account

Recall that the source of variation lies in the choice speakers make in relying primarily on tense distinctions or on grammatical relations distinctions in their formation of relative clauses. Such choice questions can be very well modeled in terms of optimality considerations for a language user. What is most important?

I will therefore attempt to interpret the three-way dialect split in the data in terms of the theoretical model of Optimality Theory (Prince & Smolensky 2004). Optimality Theory (OT) is a linguistic model or research paradigm originally proposed by Alan Prince & Paul Smolensky in 1993. It has subsequently been expanded by these authors and by John J. McCarthy. Although OT has initially focused on phonology, the theory is also applicable to syntax and semantics.

Within Optimality Theory it is possible to distinguish both different varieties of a language and different languages altogether in terms of their ranking of specific grammatical constraints. These constraints are incompatible with each other and compete, so that different rankings are possible.

If we are to apply OT to the Ecuadorian Quechua situation, in the case of relative clauses the relevant constraints needed would be the following:

(25) FUNC distinguish subjects from non-subjects
REAL distinguish realized from non-realized events
ANT distinguish anterior from non-anterior events

Of these constraints in (29), REAL and ANT can be considered faithfulness constraints (Prince & Smolensky 2004), concerned with the preservation of meaning aspects of the original message. Constraint FUNC is clearly a distinguishability constraint (De Hoop & Malchukov 2007).

I assume that it is a general feature of Quechua dialects that REAL is always ranked higher than ANT, that is to say the distinction between realized (past and present) events versus unrealized (future) events is more fundamental than the distinction between anterior (past) and non-anterior (present or future) events. This would suggest a fixed ranking between REAL and ANT for the Quechua language family at least.

Different dialects would differ in their ranking of FUNC, where the Tense Model would be associated with ranking (a), and the Grammatical Relations Model with ranking (b), leaving the intermediate model aside for the moment. In terms of the two extreme groups of dialects, the rankings can be given as in (26).

(26) *Different rankings*:
  a. REAL >> ANT >> FUNC Imbabura and Calderón
  b. FUNC >> REAL >> ANT Salasaca and Arajuno

Geographically, (26a) is the northernmost variety of Quechua in Ecuador, (26b) the central variety.

To illustrate the working of these constraints, consider the following Tableaux 1 and 2, in which the interpretations are presented for the present tense object relative clause for the Tense Model dialects and the Grammatical Relations Model dialects.

Tableau 1. Evaluation of a present object relative clause in Imbabura and Calderón (Tense Model)

Present object relative	REAL	ANT	FUNC
☞ a. -k			*
b. -shka		*!	
c. -na	*!		

Tableau 2. Evaluation of a present object relative clause in Salasaca and Arajuno (Grammatical Relations Model)

Present object relative	FUNC	REAL	ANT
a. -k	*!		
☞ b. -shka			*
c. -na		*!	

In the northernmost Tense Model dialects presented in Tableau 1, FUNC is rated lowest, and hence the subject/non-subject distinction associated with

this constraint and in principle triggered by the agentive morpheme *-k* plays a limited role. In the southern Grammatical Relations Model dialects, in contrast, the distinction between subjects and non-subjects is ranked highest, and the question of whether an action is anterior or not is ranked lowest.

The question now is how to interpret the data for the intermediate varieties of Salcedo and Tigua Quechua in terms of this scheme. One possibility would be the ordering in (27), which would reflect a ranking of FUNC in between the other two arrays:

(27) REAL >> FUNC >> ANT

This would suggest that *-shka* would be the primary marker in present object relatives, possibly with *-k* as a secondary option, as represented in Tableau 3. This situation does not conform with the observed facts, at least in my data, for these varieties. In fact, *-na* is a secondary option with present object relatives:

Tableau 3. Hypothetical evaluation of a present object relative clause in Salcedo and Tigua (Mixed Model).

Present object relative	**REAL**	**FUNC**	**ANT**
☞? a. -k		*?	
☞ b. -shka	*		
c. -na			*!

This suggests that in fact the Salcedo/Tigua variety is fairly close to the situation in Salasaca and Arajuno, and can be presented formally in Tableau 4:

Tableau 4. Evaluation of a present object relative clause in Salcedo and Tigua (Mixed Model)

Present object relative	**FUNC**	**REAL**	**ANT**
a. -k	*!		
☞ b. -shka			*
☞? c. -na		*!	

The difference with Salasaca and Arajuno would be that the constraint REAL is not so distant from ANT in its ranking (cf. e.g. Keller 2000) in Salcedo and Tigua, as it is in the dialects more to the south. In other respects, such as pronunciation, Salcedo and Tigua Quechua are quite close particularly to Salasaca Quechua.

An alternative interpretation would be that in fact the meaning of the markers itself has shifted somewhat, as suggested by Rik van Gijn. In this case *-na* would be [−ant] rather than [−real], and *-shka* would be [+real] rather than [+ant]. Both would be compatible with a present tense interpretation.

A theoretical difficulty is posed by the Imbabura Quechua data in (10). It appears that in the specific construction of an internally headed relative clause, FUNC should be ranked higher than in the context of an externally headed relative clause. This would require contextually dependent constraint ranking.

I did not do systematic research in southern Ecuador, but my available data suggest that they correspond to the situation in Salasaca and Arajuno. The following example from the southern variety Cañar Quechua is a subject relative taken from a narrative in Howard-Malverde (1981).

(28) *kumpari-ka kada ri-g-ta sara-ta ku-sh kacha-shka ni-n*
compadre-TOP each go-AG-ACC corn-ACC give-SUB send-SD say-3
'The compadre, they say, sent him away with corn each time when he went there.' (my translation)
[*Cada vez que iba donde el compadre, este le daba maiz cuando la despedia para su casa.*]

Fieldwork data from Saraguro, the southernmost Quechua variety in Ecuador, also support the Grammatical Relations Model. In (29) there is a future tense reference, and in (30) a past tense reference. In both cases, *-k* is used. However, my data for southern varieties are far from abundant, and more work is needed here.

(29) *[chi k'ari shuk semana shamu-ku-k] ñu hermano-mi*
that man one week come-PR-AG 1SG brother-AF
'The man who will come next week is my brother.'

(30) *[alba-ta shamu-ku-k] ñu hermano-mi*
dawn-ACC come-PR-AG 1SG brother-AF
'The man who came at dawn is my brother.'

5. Implications for the development of Ecuadorian Quechua

If indeed southern varieties of Ecuadorian Quechua follow the Grammatical Relations Model, what can we conclude about the development of the Ecuadorian Quechua varieties?

It is generally assumed that Ecuadorian Quechua has its roots in southern rather than central Peruvian varieties, corresponding to Chinchay and Inca Quechua (Torero 1974). If we can also assume that the Peruvian Quechua varieties brought to Ecuador in the 15th century followed such a Grammatical Relations Model, as is commonly assumed, then the situation in Imbabura described by Cole (1982) clearly is an innovation. The deranking of the FUNC constraint in the north is surprising, since one of the structural properties that would allow such a

deranking in Peru, namely the presence of person marking to indicate the subject of the relative clause, as in (31) from Puno Quechua (Costa 1972: 39), is absent in Ecuador:

(31) *urma-sqa-yki-pi* *bursa-yki-ta* *tari-rqa-ni*
fall-NOM-2-LOC purse-2-ACC find-PA-1
'I found your purse at the place where you fell down.'

In (31), the subject of the (in this case headless) relative clause is indicated with a person marker *-yki*. This possibility is absent in Ecuador, where all nominal person markers have disappeared, as noted above. This would suggest that the FUNC constraint would be all the more relevant and highly ranked in Ecuadorian varieties.

6. Conclusions

I hope to have shown that the syntactic variation encountered in Ecuadorian Quechua relative clauses provides a theoretically interesting perspective for an analysis in terms of Optimality Theory, besides raising questions for further research.

There are many empirical gaps, and a systematic new survey would be a highly worthwhile enterprise. This paper also calls for historical work to explain the innovations which, if I am correct, have taken place in northern varieties in this respect. Grammatical variation within Ecuadorian Quechua is a topic largely unexplored, and merits much further investigation.

Abbreviations

AB	ablative
AC	accusative
AF	affirmative
AG	agentive
BEN	benefactive
CAUS	causative
CI	cislocative
DAT	dative
DEV	developmental
EMPH	emphatic
FUT	future
INC	inchoative
IND	indefinite
INV	involvement
LOC	locative
NEG	negation
NOM	nominalizer
PA	past
PL	plural
PR	progressive
Q	question
SD	sudden discovery tense
SG	singular
SUB	subordinator
TOP	topic marker
WI	"with"

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Participial clauses in Tarma Quechua*

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This article discusses a clause-subordinating strategy attested in a Quechua variety spoken in central Peru. A particular type of adverbial clause is headed by a verb containing an affix that normally marks a participle, whereas no case marker is involved. The function and use of such a clause is reminiscent of the absolute construction found in classic Indo-European languages.

1. Introduction

The purpose of this article is to introduce and discuss a clause-subordinating strategy attested in the dialect of Quechua originally spoken near the town of Tarma, in the province of the same name in the northwestern part of the department of Junín in central Peru.[1] In this variety of Quechua, a particular type of dependent clauses is headed by a non-finite verb containing the affix *-sha*, which in other contexts functions as the marker of a participle. The function and use of such clauses are reminiscent of the absolute constructions found in the classic Indo-European languages Latin, Greek and Sanskrit, in which the predicate of a dependent clause also has the shape of a participle, whereas both that participle and the subject of the clause are marked for a particular case (ablative in Latin, genitive in Greek and locative in Sanskrit). In Quechua dependent clauses headed by a *-sha* predicate, the subject and the predicate are not case-marked. For this type of clause we have chosen the denomination 'participial clause', because they are headed by a nominalized verb that is similar in function to the past participle of the aforementioned Indo-European languages, both in its standard use and in the derived absolute construction. In what follows, we will first provide an overview of the types of dependent clauses that occur in Tarma Quechua. Secondly, we will briefly discuss

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1. The dialect of this area belongs to the Yaru division of the Quechua I branch, as defined in Torero (1970, 1974; see also Adelaar with Muysken 2004).

the different types of nominalization in order to delineate the function of *-sha* as a nominalizer. Finally, we will describe the main characteristics of the participial clause and discuss its relation to clauses based on other subordination strategies such as adverbialization and nominalization, both in terms of morphological valence and semantics.

2. Types of subordination

Two main types of verbal subordination are shared by all Quechua dialects. Firstly, a verb can be subordinated to another verb by means of special adverbializing markers; and secondly, the verb can be nominalized, in which case it is often, but not always, followed by a case marker. Aspect morphology and discourse markers play an accessory role in both construction types. Referential tracking of the subject of the dependent verb can always be achieved by morphological means, either directly, because its grammatical person is indicated on the dependent verb itself, or indirectly, because it is co-referential with the subject of the main verb.

2.1 Adverbial subordination (converbs)

Quechua dependent verbs or converbs[2] are characterized by the presence of adverbializing affixes. They exhibit a switch-reference distinction that marks the subjects of the main and dependent clauses as either different or the same. Quechua converbs refer to an event prior to or simultaneous with the event referred to by the verb to which they are subordinated. The latter can be another converb or the main verb in the sentence. The semantic relation between the two verbs (causal, concessive, conditional, temporal) is not explicitly specified but can be narrowed down by means of aspect markers and discourse markers.

The examples (1) and (2) from the Quechua dialect of northern Junín (located northwest of Tarma) illustrate the construction of a converb with a verb to which it is subordinated. In (1) the converb contains the marker *-pti-*, which can only be used when the subjects are different.[3] The different subject marker is obligatorily accompanied by inflectional suffixes identifying the person of the subject of the dependent clause as well as the person of a patient when it is a speech act participant.

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2. The term converb is not habitual in the linguistic literature on Quechua (but see Bruil 2008). It is common in the literature on Turkic languages (e.g. Nevskaya 2005).

3. In our data from the Tarma dialect, the suffix *-pti-* is usually represented as *-tbi-* due to metathesis and subsequent voicing of the second consonant. This modification is a geographically restricted phenomenon that has not been attested in any other variety of Quechua.

The function of the optional discourse marker *-qa*, which indicates a topic, favors the interpretation of the clause as a previous condition.

(1) *muna-**pti**-ki-qa* *aywa-shun*
want-SU.DS-2S-TO go-IM.4S
'If (as soon as) you want, we shall go.' (Black et al. 1990: 212)[4]

In (2) subordination is indicated by the marker *-r*, which is used when the subjects of the main clause and the dependent clause are identical. (The suffix *-r* can be combined with affixes that indicate the grammatical person of an object, but this is not compulsory and relatively rare.)

(2) *kiswar-ta* *aywa-**r**-qa* *papa-kuna-ta* *ranti-ra-:ri-n*
Quishuar-AC go-SU.SS-TO potato-PL-AC buy-PF-PL-3S
'As they went to Quishuar, they bought potatoes.' (Black et al. 1990: 213)

Converbs can take aspect markers in order to indicate simultaneity or consecutiveness of the events expressed by the dependent clause and the main clause.[5] In (3), the perfective aspect marker *-ru-* indicates that the event expressed by the dependent clause is prior to the event of the main clause. The verb marked for perfective aspect in the main clause refers to a punctual event.

(3) *chaka-ru-**pti**-n-shi* *yapay* *tra-ru-n* *alqu-q(a)*[6]
become.dark-PF-SU.DS-3S-HS again arrive-PF-3S dog-TO
'As soon as it had become dark, the dog appeared there again.'
(San Pedro de Cajas Quechua)[7]

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4. Special symbols used in the orthography of the Quechua examples are *q* for a voiceless uvular fricative (velar/postvelar in Tarma Quechua), *tr* for a voiceless retroflex affricate, *ch* for a voiceless alveo-palatal affricate, and *sh* for a voiceless alveo-palatal fricative; *y* is a palatal glide; long vowels are indicated with a colon (:). High vowels are lowered to mid in the proximity of an uvular consonant.

5. The Tarma dialect has a special marker *-shtin* indicating simultaneity with same subjects. A fixed combination *-ku-q-nuy*, which consists of the agentive nominalization in *-q* accompanied by the aspect marker *-ku-* and the case marker *-nuy*, has roughly the same function.

6. The final vowel of some suffixes (such as *-qa*) is not pronounced in word-final position, whereas the original antepenultimate stress is maintained on its original location [alχóχ].

7. Example sentences with the indication 'San Pedro de Cajas Quechua' as well as those that do not carry an indication of their geographical origin (all from the Tarma area) are from our own field data (see Adelaar 1977).

A typical function of converbs in a Quechua discourse is to act as the head in tail-head linkage structures (Thompson & Longacre 1985: 209).

2.2 Nominalization and case

One of the most frequent strategies for constructing dependent clauses in Quechua is based on nominalization. Nominalization assigns a nominal status to a verb and licenses the addition of case markers. Several types of subordination are obtained by combining specific nominalizations with specific case markers. Meanwhile, two types of nominalization retain a personal reference morphology that is typically verbal, because they encode both person of agent and person of patient (see § 3).[8]

In example (4), the dependent verb is nominalized by means of the suffix *-nqa-* indicating a non-subject oriented ongoing event ('relative nominalizer'). The locative case marker *-tru:* specifies the link to the main verb. The insertion of the progressive aspect marker *-ya(:)-* in the nominalized verb (again a typically verbal device) indicates the simultaneousness of the two events involved in the sentence.

(4) *puri-ya-**nqa**-n-tru:-shi huk warmi-wan tinku-ra-:ri-n*
walk-PR-RN-3S-L-HS one woman-C meet-PF-PL-3S
'While they were walking, they met a woman.' (Black et al. 1990: 207)

2.3 Nominalization without case

Apart from the participial construction to be treated below, there is one subordinate construction headed by a nominalized verb without a case suffix. It involves the subject-oriented nominalizer *-q* (also known as the 'agentive') in combination with a verb of motion. The nominalized verb refers to an action that is the purpose of the motion expressed by the main verb (5).

(5) *yaku picha-**q**-mi aywa-ya-:*
water clean-AG-AF go-PR-1S
'I am on my way to clean the water (canal).' (Black et al. 1990: 181)

In combination with the auxiliary verb *ka-* ('to be') nominalizations can also play a role in the formation of compound tenses and predicative constructions. Examples will be given in the following sections.

8. The encoding of agent-patient combinations in a verb form or a nominalized form is called 'transition' in the traditional literature on Quechua under the influence of Spanish colonial grammars from the 16th and 17th century.

3. Types of nominalization

From a morphological point of view, there are five basic types of nominalization in Tarma Quechua, each of them marked by a distinct ending.[9] Leaving aside a number of derived functions, the infinitive (ending *-y*) refers to an event in its abstract sense. The subject-centered agentive (nominalizing ending *-q*) is co-referential with the subject of the base verb to which it is added. As the complement of a perception verb, the agentive nominalizer can also refer to an ongoing event from the perspective of its subject (e.g. 'I see him/people (while) working').[10] For its use with verbs of motion, see § 2.3 (5). Of the three remaining nominalizers, *-na* ('future-oriented nominalizer'), *-nqa-* ('relative nominalizer') and *-sha* ('stative nominalizer'), the first one differs semantically from the other two in that it refers to non-accomplished events or to participants in non-accomplished events (instruments, places, etc.). The nominalizer *-nqa-* refers to ongoing and accomplished events, whereas its counterpart *-sha* refers to a participant in an accomplished event or to one of its properties. Finally, *-na* and *-nqa-* nominalizations are typically non-subject-centered, whereas *-sha* is neutral in this respect and exhibits an ergative behavior. On transitive verb bases it is co-referential with the object of the base and on intransitive verb bases with its subject.

A further dimension to be taken into account when considering the nominalization types of Tarma Quechua is their ability to combine with personal reference markers. In this respect, the relative nominalizer in *-nqa-* and the stative nominalizer in *-sha* occupy opposite poles. The *-nqa-* nominalizer co-occurs obligatorily with a full set of verbal personal reference markers that specify the actor and, when relevant, the patient as well;[11] by contrast, the *-sha* nominalizer takes no personal reference morphology at all. The future-oriented nominalizer in *-na* can co-occur with verbal personal reference markers, but not obligatorily so. The agentive nominalizer in *-q* can also co-occur with verbal personal reference markers but with some restrictions. Note that the verbal subject markers are formally coincident with the nominal possessive markers when co-occurring with nominalizers. With agentive and future-oriented nominalizers, personal reference markers can refer to a possessor, rather than to a subject, even though this is not

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9. Near Tarma a sixth ending of limited distribution is found, *-bashla*. It forms adjectives from verbal bases with the meaning 'good to', 'fit to'.

10. In both cases the nominalized verb in *-q* can be marked for accusative case, assuming the role of object in a matrix clause.

11. Note that third person patients are not indicated morphologically, except optionally in combination with the agentive marker *-q* or the subordinator *-r*.

explicitly visible. A personal reference marker that accompanies an infinitive can only refer to a possessor.

With the exception of the infinitive, Tarma Quechua nominalized verbs of all types are often used as modifiers. Although Quechua normally respects a modifier-head order, nominalized verbs can either precede or follow their heads. The criteria for the selection of either order are basically pragmatic, but the head-modifier order favors a relative clause interpretation for a nominalized verb with its dependents. The use of nominalized verbs is the dominant relativization strategy in Quechua.

We will now discuss the characteristics of the stative nominalization in *-sha* in its regular, non-derived usage. A stative nominalized form refers to a participant in an accomplished event or acts as a modifier to such a participant. This participant is selected on the basis of an ergative interpretation, that is, with transitive bases it coincides with an underlying patient and with intransitive bases with an underlying subject. From a syntactic point of view, there is always an empty slot that can correspond with the subject or with a patient, depending on whether the base is intransitive or transitive, respectively. Nominalized verbs in *-sha* can be used attributively as modifiers to a nominal head (7), (10), (12), adverbially (8), predicatively (with an overt or covert copula verb) (9), or independently as the head of a noun phrase (often accompanied by a determiner or quantifier) (6). In general, nominalized verbs in *-sha* that are used attributively can also be interpreted as relative clauses.

(6) *rupa-**sha*** [*rupa-* 'to burn' (intr.)]
burn-SN
'A burn.' 'Something burnt.' (Black et al. 1990: 184)

(7) *misa rura-**sha*** [*rura-* 'to make', 'to do' (tr.)]
mass do-SN
'The mass that has been said.' (The name of a village, Misarrurasha).

(8) *ishkay nana-qa ma:rasta-pita*
two sister-TO stepmother-AB
*triqni-**sha**-sh kawa-pa:ku-ra* [*triqni-* 'to hate' (tr.)]
hate-SN-HS live-PL-3S.PA
'Two sisters once lived, hated by their stepmother.'
(San Pedro de Cajas Quechua)

Because it refers to an accomplished event, the stative nominalizer does not normally co-occur with aspect markers.[12] However, this restriction can be circumnavigated

12. Utterances in which a stative nominalizer is combined with the perfective aspect marker *-ru-/-ra-* can be treated as instances of a minimal participial clause without subject and patient marking (see, for instance, (20) in § (5).

by using the stative nominalizer in combination with the copula verb *ka-* 'to be', which does take aspect markers.

(9) *manchaka-**sha**-m* *ka-ya-nki*[13]
get.frightened-SN-AF be-PR-2S
'You are frightened.' [*manchaka(:)-* 'to get frightened' (intr.)]
(Black et al. 1990: 182)

The stative nominalizer in *-sha* does not combine with personal reference markers, and in this respect it holds a complementary position with regard to the relative nominalizer in *-nqa-*.

(10) *alqu* *maqa-**sha*** [*maqa-* 'to beat' (tr.)]
dog beat-SN
'A dog that has been beaten.'

(11) *alqu* *maqa-**nqa-:*** [*maqa-* 'to beat' (tr.)]
dog beat-RN-1S
'A dog that has been beaten by me.' 'A dog that I have beaten'

With intransitive bases, both the stative nominalizer and the agentive nominalizer refer to a subject participant. They differ, however, in that the use of a stative nominalizer emphasizes the accomplished or state-like character of the underlying event, whereas the agentive is associated with ongoing, non-accomplished or past events.

(12) *punu-**sha*** *wamra* [*punu-* 'to sleep' (intr.)]
sleep-SN child
'A child that is asleep/has slept.'

(13) *punu-**q*** *wamra* [*punu-* 'to sleep' (intr.)]
sleep-AG child
'A child that sleeps (now, regularly, soon, once).'

In its overall use and its adjective-like character, the Quechua nominalization in *-sha* is very similar to the past participle of Indo-European languages.

13. Historically, the suffix *-sha* was derived from **-shqa*. As a result, it cannot be preceded by the long vowel version of any other suffix or root (see Adelaar 1977: 86–8 for an account of this restriction).

4. The participial clause, a non-standard use of *-sha* nominalization in Tarma Quechua

A different way of subordination based on the nominalization marker *-sha* is amply attested in a substantial corpus of texts obtained in 1970–1971 from a speaker native to the area southeast of the town of Tarma.[14] It is also found, in a less elaborate version, in folkloric tales from the Tarma region originally published by Vienrich in 1906 (Vienrich 1999). However, this type of subordination has not been attested in data from other documented dialects of the area, for instance, San Pedro de Cajas Quechua (Adelaar 1977) and the northern Junín variety described in Black et al. (1990), nor has it been recorded in other Quechua-speaking areas further at large. All this seems to indicate that its geographical distribution is very restricted.

The characteristics of this type of subordination can be summarized as follows. Note that the features (b)–(d), (f)–(g), (i) listed below are all in conflict with the characteristics of the stative nominalizer in *-sha* as defined in § 2.

a. The dependent verb containing the marker *-sha* heads a dependent clause.
b. The dependent verb in *-sha* no longer has nominal characteristics. It denotes an event rather than a participant in the event or one of its properties.
c. The event denoted by the dependent verb can either be accomplished or ongoing.
d. The dependent verb can contain aspect markers.
e. The dependent verb can be followed by discourse markers like the head verb in any other dependent clause.
f. The dependent clause is interpreted as active even when the verb base is transitive. The ergative behavior associated with stative nominalization in its non-derived use is not found.
g. From a syntactic point of view, there are no empty slots. Both the subject and the object position can be filled.
h. There is no morphological indication of the subject. The subject can be indicated lexically.
i. There is no morphological indication of a patient, except for first person inclusive plural (see § 5 below). Objects can be indicated lexically.
j. Lexical subject and patient expressions respect the dominant SOV order of Quechua dependent clauses.

14. Ignacio Zárate Mallma, originally from the township of Vicora Congas near Tarmatambo.

k. When both subject and patient are expressed, the latter is marked for accusative case. When only the patient is expressed, accusative case marking is optional.[15]
l. The dependent clause is separated from the main clause by a pause.

Sentences (14) and (15) exemplify (S)OV word order and the presence of accusative case marking in a dependent clause headed by *-sha* (j)–(k); the dependent verb has a transitive base and is interpreted as active (f). Note the presence of the affirmative evidential discourse marker *-m* (e) in (14) and the topical discourse marker *-qa* in (15).

(14) *mana* *nuqanchik* *kuga-ta* *traqtra-**sha**-m* *kiru-nchi* *ismu-n*
not we[inclusive] coca-AC chew-SN-AF tooth-4P rot-3S
'Our teeth rot if we do not chew coca.'

(15) *mana* *chay-ta* *trura-**sha**-qa* *mana-m* *ima-wan*
not that-AC place-SN-TO not-AF what-IS
ayga-wan-si *alichaka-n-chu*
how.much-IS-AD get.cured-3S-NE
'If we do not apply that (medicine), it will not get cured by any (other) means.'

In (16), the patient is not marked for accusative case (k). Theoretically, a passive interpretation of the dependent verb, in which the noun *umanchi* would be its subject, is possible. However, one may prefer the interpretation of *umanchi* as an object unmarked for case, an analysis that is more conformable to the absence of ergative behavior registered in a majority of the attested participial clauses. Note that the event to which the dependent verb refers is ongoing, rather than accomplished (c).

(16) *uma-nchi* *qibi-**sh(a)*** *qitara-ya-nchi* *qatra-nchi* *qana-n-tru*[16]
head-4P carry.on.the.shoulders-SN lie-PR-4S herb-4P top-3P-L
'Carrying our head on our shoulders [or: 'our head being carried on the shoulders'], we are lying on top of our (medicinal) herbs.'

The following example (17) is taken from one of the animal stories published by Vienrich (1999: 168). Vienrich's material contains several instances of participial clauses containing both transitive and intransitive predicates. However, it does not contain any example with an explicit object, neither as a syntactically free expression, nor as a morphological marker. In (17), the subject of the subordinate

15. In Quechua the object of a nominalized verb is usually not marked for accusative case.

16. Quechua spoken southeast of Tarma exhibits a number of phonological innovations, viz. the voicing of grave stops (/k/ > /g/, /p/ > /b/) and the coincidence of the uvular and glottal-velar fricatives /q/ and /h/ into a velar fricative. The latter is represented as *q* in this article.

intransitive predicate *rikaka-sha* (from *rikaka(:)-* 'to become visible') is different from that of the matrix clause, which is also headed by an intransitive verb (*hama-ra-:ri-n* 'they rested'). Since the subjects are different, the interpretation of *mana may-pa aywa-na-n-pis rikaka-sha* as a participial clause is the only one possible.

(17) *kiki-n-kuna-sh* *ushaka-ru-r-qa* *hama-ra-:ri-n,* *mikuy-pita*
self-3P-PL-HS get.tired-PF-SU.SS-TO rest-PF-PL-3S food-AB
wanu-sh(a)-kama *mirkapa-n* *usha-ru-pti-n,* *mana*
die-SN-PL provisions-3P finish-PF-SU.DS-3S not
may-pa *aywa-na-n-pis* *rikaka-**sha***[17]
where-G go-FN-3S-AD be.visible-SN
'After they themselves had become exhausted, they rested, starved to death because they had run out of provisions, there being no way to find out how they should continue.'

5. Aspect in participial clauses

Sentences (18)–(20) exemplify the use of the aspect markers *-ru-/-ra-* 'perfective aspect' and *-ya(:)-* 'progressive aspect' in a dependent clause headed by *-sha* (d). As can be expected, perfective aspect must be associated with accomplished events, whereas the progressive aspect is limited to ongoing events (c). Note that a transitive verb can remain active and transitive notwithstanding the presence of the reflexive marker *-ku-* (f). Only the patient is expressed in (18). In (19) and (20), there is no overt expression of either the subject or the patient. In example (20), the subjects of both the dependent clause and the main clause are co-referential. In such cases, the boundary between a participial clause and an attributive modifier may seem to be blurred, but the presence of the perfective aspect marking favors the former interpretation.

(18) *tragi-nchi-ta* *pagi-ku-ru-**sha*** *magi-nchi-ta*
foot-4P-AC break-RF-PF-SN hand-4P-AC
*pagi-ku-ru-**sha*** *cha:* *ga-ya-n* *muña* *qatra*
break-RF-PF-SN for.that be-PR-3S mint herb
'If we break our feet, if we break our hands, then we have the mint plant (at our disposal).'

17. Vienrich's transcription does not consistently show the consonant voicing found in the area near Tarma (see fn. 17). We have adapted Vienrich's material to the orthography used in this article (replacing *ushia-* with *usha-*, for instance), but we have made no attempt to introduce voicing.

(19) *chay-wan kuba-ku-ya-**sha**-la-m chay bentu ilari-n*
that-IS rub-RF-PR-SN-DL-AF that wind disappear-3s
'If one keeps rubbing oneself with it, that (evil) wind disappears.'

(20) *qarwashya-ru-**sha** patra-nchik nana-n*
become.yellow-PF-SN belly-4P hurt-3s
'Once they have turned yellow, our bellies hurt.'

6. Participial clauses with an encoded object

The possibility of morphological object encoding is one of the most salient features of the participial clause construction in Tarma Quechua. In a participial clause construction the predicate in *-sha* may contain the personal reference marker *-ma(:)-*. The primary function of *-ma(:)-* is to encode a first person singular (or exclusive plural) patient (1o). However, in a participial clause it refers to a first person inclusive plural patient (4o) with the implication that the subject is third person.

(21) *mé:diku rirgara-ya:-**ma**-sha-m wanu-ku-nchik*
physician watch-PR-4O-SN-AF die-RF-4s
'We die while the physician is watching us.'

(22) *ushnu pampa shuqu-ra-**ma**-sha-m pasay qarwashya-ru-nchik*
marshy plain suck-PF-4O-SN-AF completely become.yellow-PF-4s
'When we have been sucked at by a marshy plain, we end up completely yellow.'

In Central Peruvian Quechua dialects, including Tarma Quechua, a first person plural inclusive patient acted upon by a third person is otherwise indicated by a combination of *-ma(:)-* with a subject ending for first person plural inclusive (4s), as in (23).[18] Such a combination may be the source of the divergent use of *-ma(:)-* in participial clauses, in which the predicate retains the inner element (*-ma(:)-*) but rejects the peripheral component (*-nchik*, etc.).

(23) *mana-m kanan-yubay-chu ima nanay chari-ma-sha-s(i)*
not-AF today-CP-NE what pain catch-4O-SN-AD
*mé:diku kuchu-ra-**ma-nchik** u:sha-n-ta-yubay*
physician cut-PF-4O[INV]-3s[*4s] sheep-3P-AC-CP
'It was not like today that, whenever we are caught by some pain, the doctor cuts us up as if we were one of his sheep.'

18. A similar combination occurs in southern Peruvian and Bolivian varieties of Quechua, except that the first person object marker is *-wa-* instead of *-ma(:)-*. One may argue that *-ma(:)-*/*-wa-* acts as an inverse marker in this case.

7. A possible model for the absence of ergative behavior in participial clauses

The dialect of northern Junín and southeastern Pasco (Black et al. 1990), which is closely related to Tarma Quechua, features a compound perfect tense consisting of a nominalized verb in *-sha* followed by the auxiliary verb *ka-* 'to be'. In this tense, transitive verbs retain an active interpretation, which means that the ergative effect associated with stative nominalization is no longer operative. Even though this compound tense is not found in Tarma Quechua, it may have provided a model for the absence of ergative behavior in participial clauses, either by dialect contact or because such a tense may have existed there at an earlier stage. Again the only personal reference suffix that occurs before *-sha* is *-ma(:)-*, which can convey the meaning of a first person plural inclusive patient acted upon by a third person subject (24). The second part of the combination (*-nchi*) is expressed peripherally on the auxiliary verb *ka-*. Unlike *-ma(:)-*, the only other suffix with an inverse function, *-shu-* (3s.2o), is transferred to the auxiliary verb (25).

(24) *papa-ta* *qu-**ma**-sha* *ka-**nchi***
potato-AC give-4O[INV]-SN be-3s[*4s]
'They have given us potatoes.' (Black et al. 1990: 183)

(25) *papa-ta* *qu-sha* *ka-**shu**-nki*
potato-AC give-SN be-2O[INV]-3s[*2s]
'They have given you potatoes.' (Black et al. 1990: 183)

8. Quechua participial clauses and the Indo-European absolute construction

As we noted in the introduction to this article, the Quechua participial clause exhibits a striking similarity with the absolute constructions of classic Indo-European languages. In (26), an example from Sanskrit, the noun *mūle* 'root' and the participle *hate* 'killed' together form a dependent clause. Both the noun, which plays the role of a subject, and the participle are marked for locative case.

(26) *mūle* *hate* *hataṃ* *sarvam*
root.NG.L kill.SN.NG.L kill.SN.NG.NM all.NG.NM
'When the root is killed, everything is killed.' (Gonda 1963: 89)

Gonda (1963) provides the following characterization for the so-called *locativus absolutus* construction (our translation): "…the locative of a noun connected with the locative of a participle that describes an external situation preceding or accompanying the action of the sentence. In German, this construction can be

represented by temporal, causal, concessive and conditional dependent clauses." This semantic characterization of the *locativus absolutus* in Sanskrit appears to be applicable to the Quechua participial clause, but also to the adverbial clauses of that language. As a matter of fact, it is difficult to draw a semantic division line between Quechua participial clauses, on the one hand, and adverbial clauses, on the other.

The parallelism between Quechua participial clauses and the absolute construction of the Indo-European languages is not complete.[19] Whereas the latter normally maintain a distinction between active and passive participles, Quechua only uses the closest equivalent of a passive participle, which then loses its (potentially) passive meaning. This loss of ergative behavior is a characteristic of the Quechua participial clause. Another difference, of course, is that the Quechua construction lacks case-marking. Other constituents that lack case marking in Quechua are the subject and the nominal complement of a copula verb, exactly the constituents that require nominative case in the classic Indo-European languages. Therefore, from an Indo-European viewpoint the participial clause of Tarma Quechua could be characterized as a *nominativus absolutus*.

9. Final semantic characterization of the participial clause in Tarma Quechua

As a rule, the semantic relation between a dependent clause based on nominalization and its matrix clause is rather well specified thanks to the presence (or significant absence) of a particular case marker in combination with the choice of a particular nominalizer. By contrast, participial clauses and adverbial clauses share the characteristic that the semantic link with their matrix clause is minimally specified and has to be filled out by the context or complemented by additional aspect and discourse markers.

In contradistinction with adverbial clauses, the identity of the subject in participial clauses can be left unspecified. It may or may not coincide with the subject of the matrix clause. The explicit expression of objects in participial clauses is a frequent feature of relatively recent Tarma Quechua speech, but it does not occur in the folktales brought together by Vienrich in 1906.

We may speculate that the main function differentiating fully articulated participial clauses from their adverbial counterparts is semantic backgrounding. Further research is necessary in order to determine whether the difference

19. As in Quechua, Indo-European absolute constructions can take objects, e.g. in Latin *vincente odio metum* 'when hatred overcomes fear' (Titus Livius, *Ab Urbe Condita*, Liber XL: 3).

between adverbial and participial clauses, not attested and apparently not needed in a majority of the Quechua dialects, is anything but stylistic.

Abbreviations

1	first person	IS	instrumental
2	second person	L	locative
3	third person	NE	negation
4	first person incl.	NG	neuter gender
AB	ablative	NM	nominative
AC	accusative	O	object
AD	additive ('also')	P	possessor
AF	affirmative evidential	PA	past tense
AG	agentive nominalizer	PF	perfective
C	comitative	PL	plural
CP	comparative ('like')	PR	progressive
DL	delimitative ('just, only')	RF	reflexive
DS	different subjects	RN	relative nominalizer
FN	future nominalizer	S	subject
G	genitive	SN	stative nominalizer
HS	hearsay evidential	SS	same subject
IM	imperative mood	SU	subordinator
intr.	intransitive	TO	topic
INV	inverse	tr.	transitive

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Complex sentences in Uchumataqu in a comparative perspective with Chipaya

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The following article aims at providing an overview of complex sentences in Uchumataqu (Uru), including a brief comparison with subordination devices in the genetically related Chipaya language. The comparison seeks to provide an impression of the similarities and differences between subordination strategies in the two languages, and it will become apparent that there are some considerable differences which show that Uchumataqu and Chipaya represent different morphological types.

1. Introduction

1.1 Sociolinguistic and historical aspects

Uchumataqu, also referred to as Uru,[1] was a language spoken around Lake Titicaca in north-western Bolivia and south-eastern Peru, mainly in the villages of Irohito (Desaguadero River, Bolivia) and Chi'mu (Bay of Puno, Peru). The communities have always been rather small, each with about 100 or 150 inhabitants (cf. Muysken & Hannß 2006: 215), they were probably isolated from each other, and surrounded by an Aymara-speaking population of farmers and stockbreeders. In contrast to that, the Urus' economy was (and still is) based on hunting, fishing, and gathering, for which they have always been despised by their neighbours.

Uchumataqu became extinct around 1950 due to an increasing social and economic pressure of the surrounding Aymara population, and when there was a severe drought at the beginning of the 1940's, this meant the end to the Uchumataqu speaking communities. The settlements of Irohito and Chi'mu survived, but the language spoken today is Aymara (and to an increasing degree Spanish) and only the knowledge of words and some phrases of Uchumataqu remains.

Despite the unlucky circumstances, Uchumataqu has been documented between 1894 and 1952 by several researchers, who visited the community of

1. In the following, I will refer to the language as Uchumataqu while the speakers are called Uru.

Irohito and collected linguistic and ethnographic data. On the basis of these sources Uchumataqu[2] can be classified as a moderately agglutinating language (Hannß 2008: 131) with mainly suffixes but also two prefixes, one of which, however, appears to have been lexicalised at the time of documentation. One of the main functions of these prefixes is to indicate the participants of a clause (Hannß 2008: 226ff). The language has a SOV word order in principle but allows considerable variation. In general, the non-finite verb precedes the finite one (for an exception, cf. 2.2.2), and if a clause has two objects, the indirect object usually precedes the direct one. The case system resembles that of Quechua and to a lesser degree Aymara, but the verbal system differs from both Aymara and Quechua, particularly since Uchumataqu marks only a first person singular overtly in present and future tense (cf. Hannß 2008: 211). All other persons are unmarked on the verb and are expressed either by pronouns or else by personal clitics. Uchumataqu has a set of three person marking clitics: *=l* first person, *=m* second person, and *=s* third person, the existence of which sets the language clearly apart from Quechua and Aymara (cf. Hannß 2008: 275).

Uchumataqu is genetically unrelated to Aymara and Quechua and although several efforts have been made to establish a genetic affiliation with lowland languages (cf. Crequi-Montfort & Rivet 1926: 121–139, 1927: 57–69, Fabre 1995), Uchumataqu is best classified as an isolated language on the basis of the available information. Together with closely-related Chipaya, it forms the isolated language family of Uru-Chipaya.

The variety of Chipaya is spoken in Southwest Bolivia in the village Santa Ana de Chipaya, which is located between the town of Oruro and the Uyuni Salt Lakes. The language is highly endangered and only about 1,800 native speakers remain, all of which live in the village of Chipaya. After Uchumataqu had become extinct, scientific focus turned to Chipaya and since the 1960's, several investigations have been carried out that have resulted in a number of publications. Among the most recent research on Chipaya are the DOBES project 'Uru-Chipaya'[3] and Rudolfo Cerrón-Palomino's study (Cerrón-Palomino 2006).

The genetic relationship between Uchumataqu and Chipaya has been described as being similar to that between French and Spanish (Muysken 2001: 77). Like Uchumataqu, Chipaya is a basically agglutinative language with mostly suffixes but also two prefixes, which indicate participant reference (Cerrón-Palomino 2006: 158). Like Uchumataqu, Chipaya is a SOV language and the subordinate

2. The following basic statements on Uchumataqu are also valid for Chipaya.

3. DobeS = *Dokumentation bedrohter Sprachen*, Documentation of Endangered Languages. This project was funded by the *Volkswagen Stiftung*, Hanover, Germany.

constructions tend to precede the main clause (cf. Section 3). However, Chipaya also shows some peculiarities which are not found in Uchumataqu. The most prominent one is gender distinction, which affects the verbal and pronominal system as well as the personal clitics. Furthermore, Chipaya has some grammatical morphemes, which are missing from Uchumataqu, as e.g. the Chipaya past tense marking *-chi*, which also expresses person reference. And, as will be shown in this paper, Uchumataqu and Chipaya also differ with respect to the subordination strategies they use.

1.2 Sources on Uchumataqu

As mentioned above, Uchumataqu has been documented during the last 50 years of its existence and these studies are the database for the interpretation carried out in the following (cf. Hannß 2008). Unless indicated otherwise, I have maintained the translations of the examples as provided by the authors and translated them into English. The data on Chipaya, their interpretation, and analysis are taken from Cerrón-Palomino's grammar on Chipaya (2006). It must be noted that only Vellard (1949) collected entire Uchumataqu texts, whereas the remaining sources provide only single sentences without a context. In some cases, the meaning of an example sentence thus remains uncertain.

Table 1 provides an overview of the contents of the sources and the languages they are written in. The overview is restricted to documents providing linguistic information.

Table 1. Sources on Uchumataqu and database for the following presentation

Researcher	Content	Original language
Uhle 1894	grammatical description with particular interest to the (pro)nominal system; about 600 words and phrases	German
Polo 1901	word list	Spanish
Bacarreza 1910	word list	Spanish
Lehmann 1929[4]	word lists (Irohito and Chi'mu)	German
Métraux 1935	extensive word list with about 200 phrases	French
Vellard 1949	8 texts of differing length	French
Vellard 1950, 1951	word list with more than 1,000 entries	French
Vellard 1967	singles sentences and phrases	Spanish
Muysken 2001	short text	Spanish
Muysken 2005	extensive word list with more than 150 clauses	Spanish

4. The manuscripts of Max Uhle and Walter Lehmann remained unpublished. I am very grateful to the *Ibero-Amerikanisches Institut*, which gave me access to the scientific legacy of both Max Uhle and Walter Lehmann.

1.3 Aim of the paper

The aim of this article is to present an overview of complex sentences in Uchumataqu with particular attention to subordination strategies. This presentation will be followed by a brief comparison with Chipaya. It will be shown that despite their close genetic relationship, the two languages display considerable differences in their subordination strategies.

According to Croft (2003: 216–217), verb forms in subordinate clauses show the following features:

a. elimination of tense, modality and aspect markings, or use of special forms distinct from those used on simple main clause verbs;
b. elimination of indexation markings used on simple main clause verbs, or use of special forms distinct from those used on simple main clause verbs;
c. overt morpheme attached to verb form.

Cristofaro (2003) offers a functional approach to subordination, which will be in part applied to the following presentation. It offers an alternative to the more formal notions of embedded clauses that are often used to define complex sentences. Uchumataqu does not show what could be termed embedded clauses, and word order in complex sentences hardly ever deviates from that of simple declarative clauses. Furthermore, Uchumataqu allows considerable variation with respect to word order. Therefore, Cristofaro's functional approach as outlined below will be used in the following. In accordance with that, I will adopt Cristofaro's terminology when talking about e.g. manner *relations* instead of manner *clauses*, since within the functional approach "reference is made to semantic relations between SoAs, not any particular clause type […]" (Cristofaro 2003: 39). However, in my text I will use the term "event" instead of SoA (State of Affairs).

It is clear that some other functional criteria are less useful for Uchumataqu. This is particularly true for the so-called "lie-test" (Erteshik-Shir & Lappin 1979, 1983): "The lie-test is a device for testing what parts of a sentence are dominant, that is can become the subject of further conversation. The lie-test consists in placing the sentence in a context of direct discourse, and then denying or assigning a probability or truth value to the various parts of the sentence, […]" (Cristofaro 2003: 36). By this, the "lie-test" can contribute to establishing which parts of an utterance are subordinate and which are not. However, this is of course impossible for the material available on Uchumataqu. I will thus roughly follow Cristofaro but will put more value on morphology than intended by the functional approach.

As proposed by Cristofaro (2003: 52), potentially divergent verb forms are best established in a comparison with the main verb of an independent declarative

clause of the language. A simple, independent declarative clause of Uchumataqu is shown in (1).[5]

(1) *wir-i=l niksta okw[a]-a=chay*
I-LV=1 then go-FUT=DEC
'Then I will go.' (Vellard 1967: 31)

The verb *okwachay* 'I will go' in (1) is marked as a main-clause predicate by the declarative marker *=chay*.[6] Subordinate predicates, in contrast, are marked by the absence of declarative *=chay* and instead take one of the suffixes listed below (cf. Croft 2003: 216, 217, a. and c.).

Suffixes that mark subordinate predicates:

sequential marker *-na*
gerund *-ku*
conditional *-(t)jani*
agentiviser *-ni*
purpose *-xapa*
action nominaliser *-s(i)*
zero marked verbs in multi-verb constructions

How do these suffixes relate to the notion of subordination? Verbs inflected with one of these suffixes differ from a main verb by the lack of declarative *=chay*, which has an assertative function and thus conveys illocutionary force. We can then assume that the lack of declarative *=chay* marks a lack of assertion and illocutionary force, which "is the property whereby a sentence can function as a speech act" (Cristofaro 2003: 32).

2. Subordination in Uchumataqu

Following Cristofaro (2003: 39), I will understand subordination as follows: "By subordination is meant a situation of functional asymmetry whereby the profile

5. The spelling of the example clauses is adjusted to the modern alphabet of Irohito, as proposed by Grinevald (1995) and published in Muysken (2005: 5f). Parentheses in the example clauses mark an addition made by the original researcher, while brackets denote additions made by me. These concern either deleted vowels/consonants or additions made in order to facilitate the understanding of the translation (see also the list of abbreviations).

6. This is not a verbal suffix, but a sentential clitic, which in non-verbal predicate clauses is attached to the subject. The presence or absence of this marker is a valid indicator of whether a verb is to be understood as the main verb of a clause or not.

of one of two linked SoAs is overridden by that of the other." Subordination strategies can be roughly divided into an adverbial branch and a complemental one (cf. Noonan, Thompson & Longacre 1985). Figure 1 shows these subordination strategies in Uchumataqu.

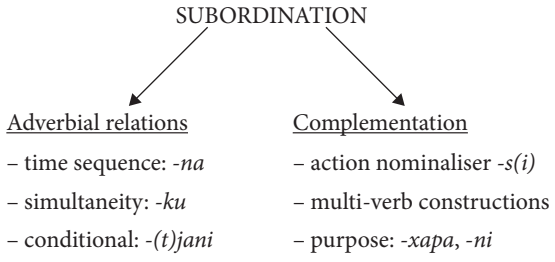

Figure 1. Sketch of Uchumataqu subordination

I will first describe subordination by adverbial relations before turning to a presentation of complementing subordination.

2.1 Adverbial relations

Adverbial relations "link two SoAs such that one of them (the dependent SoA) corresponds to the circumstances under which the other one (the main SoA) takes place" (Cristofaro 2003: 155). That is, adverbial relations further describe the circumstances of the event expressed by the main verb.

2.1.1 *Time sequence relations*

The notion of temporal sequence is expressed in Uchumataqu by the sequential marker *-na* (DS),[7] which is best translated as "when" and indicates the "succession" (Thompson & Longacre 1985: 180) of two events. Although the database on the sequential marker *-na* is severely limited and there are only three potential instances found, its usage suggests that it refers to a remote future tense with only a minor temporal overlap to the event described by the main verb. Furthermore, *-na* has a switch-reference function. Please consider example (2).

7. The sequential marker *-na* has a possible allomorph *-an*, although a different interpretation of this form is also possible. Since no definite interpretation is available, yet, I will limit the presentation to the form *-na*.

(2) *tukun tiks-**na** tachikni litrat*[8] *cheri-s-n-a=chay*
woman die-DS portrait see-SU-OBJ-FUT=DEC
'Once the woman has died, I will look at the portrait.'
(lit.: 'When the woman dies …') (Vellard 1949: 168)

The subordinate verb form *tiks-**na*** shows all the characteristics listed by Croft (2003: 216, 217), i.e. it does not carry any of the TAM markers found on the main-clause verb *cherisnachay* 'I will look at it', it lacks declarative *=chay*, and shows instead the special morphological form *-na*.

From what can be said on the basis of the three instances found, the sequential marker *-na* is accompanied by a noun or pronoun, which indicates the subject. It thus appears that *-na* itself does not carry person information.[9]

As has already been mentioned, the sources provide only three examples that contain the sequential marker *-na*. The overwhelming majority of complex clauses with different subjects is built by juxtaposition. In example (3), two declarative clauses are simply juxtaposed, each with its own subject, and no means of subordination is employed.

(3) *ana chhi chuñi chhila qhuy[a]-kina chhila qhuy[a]-kina*
NEG that good another house-DIR another house-DIR

shish-aki=chay wir=ki t[a]xa-ch-a=chay
lead-FUT=DEC I=TOP sleep-IRR-FUT=DEC

'That is not good; you will lead me to other houses, I shall sleep.'
(Vellard 1967: 2)

2.1.2 *Simultaneity relations*

Thompson and Longacre (1985: 188, 189) characterise the notion of simultaneity as follows: "In marking that two events occurred simultaneously, it appears to be universally the case that languages allow one of the simultaneous events to be

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8. The expression *litrat* is possibly a loan from Spanish *retrato* 'portrait'. However, the form *tachikni* remains uncertain, particularly since Vellard (1949: 186, translation mine) himself does not provide a further analysis but only points out: "I am myself not absolutely sure about the transcription of *tíkš' na-tačíkni;* it is a future form of die, meaning 'the one stretched out". ("Je ne suis pas absolument sûr de la transcription de *tíkš' na-tačíkni*; c'est une forme future de mort, littéralement 'qui est étendu.'").

9. A similar situation is found in e.g. Quechua, where the switch reference marker *-pti* (or *-qti*) does not carry person information. Instead, person reference is expressed by the obligatory use of the possessive suffixes on the subordinate verb (cf. Cusihuaman 1976: 222, 223).

signalled as providing the context or background for the other, or foregrounded, event […]." The event marked for simultaneity is understood as being backgrounded, i.e. dependent. The notion of simultaneity is expressed in Uchumataqu by the verbal suffix gerund *-ku* (GER), which occurs five times in the data.

(4) *hap-hap-**ku** wesla tan-achu=chay*
run-run-GER duck hunt-IN=DEC
'Running very hard, we hunt the duck.' (Vellard 1949: 159)

Similar to the sequential marker *-na* described above, verbs inflected with gerund *-ku* show all the properties of a subordinate verb form (cf. (2)). Since gerund *-ku* also expresses coreferentiality, the subject need not be overtly expressed (cf. (4) and (5)).

(5) *tiks=chay kwas-na*[10] *k'ap-**ku***
die=DEC water-LOC sink-GER
'[S]he dies, sinking into the water.' (Vellard 1967: 4)

The markers *-na* and *-ku* are the only ones that convey two functions, namely that of temporal relation marking and coreferentiality with the main-clause subject (cf. Table 2).

Table 2. Temporal relation and coreferentiality expressed by DS *-na* and GER *-ku*

−cor/−sim	*-na*
+cor/+sim	*-ku*

In comparison to Chipaya and other Andean languages, this system appears to be asymmetrical since it offers no morphological means to express non-coreferentiality and simultaneity or coreferentiality and non-simultaneity. The data suggest that these notions are rather expressed by co-ordination and the use of personal pronouns, as in (6).

(6) *wir=ki am cherk-s-n-u=chay an[a] am ten=chay*
I=TOP you look-SU-OBJ-1SG=DEC NEG you get_lost=DEC
'I am looking for you; you are not lost [are you?].' (Vellard 1967: 2)

10. The locative marker *-na* is a loan from Aymara (cf. Porterie-Gutiérrez 1981: 163).

This asymmetrical system may be ascribed to several factors. First, it may be due to the circumstances of documentation, i.e. the constructions that might have contained further markers were simply not recorded. It is also possible that the reduction is due to the language attrition of Uchumataqu, particularly in its final stage of use, as documented by Vellard. It may also be the case that Uchumataqu always had only two markers referring to temporal relations and person reference. Given the information provided by the sources on Uchumataqu, no definite answer is possible.

2.1.3 *Conditional relations*

Following Cristofaro (2003: 160) "conditional relations establish a connection between two SoAs such that the occurrence of one of them (the dependent one, also indicated as the antecedent) is the condition for the occurrence of the other." Uchumataqu expresses conditional relations by the verbal suffix *-(t)jani*, whose use, however, is testified only in Uhle (1894), who provides only six instances of this suffix.

(7) *ep-i=s* *pich-**tjani*** *lul-aki=chay*
father-LV=3 come-CD eat-FUT=DEC
'If father comes, we will eat.' (Uhle 1894: 92.1)

(8) *ana* *chij-in-**jani*** *ana* *[am]chuk[i]* *sqal-acha=chay*
NEG rain-HAB-CD NEG you (pl) sow-IRR=DEC
'If it had not rained regularly, you could not sow.' (Uhle 1894: 92.1)

The conditional relation established by the form *-(t)jani* can be described as a "reality condition", according to Cristofaro (2003: 160): "The definition 'reality condition' is used in Thompson and Longacre (1985) to refer to situations […], where the occurrence of the dependent SoA is presented as possible in the present or past. […] The basic implication of reality condition relations is that if the dependent SoA takes place, the main one also takes place." These definitions are met by the subordinate verb forms marked by *-(t)jani*. The participants of the main and dependent clause do not need to be the same, in which case Uchumataqu expresses participants either overtly (cf. (7)) or refers to them by personal pronouns (cf. (8)) or clitics.

2.1.4 *Purpose relations*

Purpose, according to Cristofaro (2003: 157) can be defined as two situations "one of which (the main one) is performed with the goal of obtaining the realization of

another one (the dependent one)." In contrast to the morphemes discussed so far purpose marker *-xapa* is a nominal suffix, and in order to be attached to verbs, it must be preceded by action nominaliser *-s(i)* (cf. (9), (10)). The resulting construction is best translated with "for X-ing."

(9) *asqi-na* *ox-achu=chay* *qaru* *paa-s-**xapa***
far-LOC go-IN=DEC *totora*_rope make-AN-PUR
'We go to [a place] far away for making *totora* ropes.' (Vellard 1949: 154)

There is no special morpheme or construction to express a negative purpose. Instead, the general negative particle *ana* 'no, not' (cf. (10)) precedes the construction containing *-xapa*.

(10) *asqi-l*[11] *ox=chay* *ma=ki* *qona* *tuki* ***ana***
far-? go=DEC mother=TOP dry before NEG

*kun-s-**xapa*** *pichi* *kata-s-**xapa***
remember-AN-PUR breast forget-AN-PUR

'The mother goes far away before she runs dry, for (the child) not remembering the breast [= being breastfed], for forgetting it.'[12] (Vellard 1967: 18)

With respect to participants involved in the event, Cristofaro (2003: 157) notes that "the prototypical purpose relation seems to be one in which the main and dependent SoAs are performed by the same entity, which can control the realization of the dependent SoA." This is the case in (9), where the subject of the clause is marked by in-group marker *-achu* 'we (exclusive)' and the event expressed by the verb marked with *-xapa*, namely the making of *totora* ropes, is performed by this very subject. However, in (10) this is quite different since there, two participants are involved and the event marked by *-xapa* is not even performed by the subject itself. Instead, it is the child (not overtly expressed) to which the *-xapa*-marked events relate and the context suggests that the event is performed neither willingly nor that is it controlled. Thus, in Cristofaro's terms, (10) is not a prototypical purpose relation.

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11. The element *-l* cannot be analysed.

12. On how to wean children. Although Vellard (1967: 18) does not provide a context to the example, we may assume that the mother stops nursing the child before she runs dry and refuses to breastfeed it any longer. Such, the child shall 'forget' being nursed and instead is to get used to normal food. Please note that the word 'child' is not overtly expressed in the Uchumataqu clause but was inserted to the Spanish translation by Vellard.

Uchumataqu has another marker to indicate purpose, which is the agentiviser *-ni* (AG). In its prototypical function, *-ni* derives nouns from verbs and marks them as an agent (cf. (11)) (although in some cases, it can also designate a patient; cf. Hannß 2008: 233).

(11) *shish-* 'to know'; *shish**ni*** 'sorcerer' (Métraux 1935: 106, 96)

It is only with motion verbs in main verb position that the agentiviser *-ni* also serves to express purpose, in which case the form marked by *-ni* is translated either as 'to X' or literally as 'as X' (cf. (12) and (13)).

(12) *wir-i=l tg'es-**ni** pich-a=chay*
I-LV=1 work-AG come-FUT=DEC
'I will come to work.' (lit: 'I will come as a worker.') (Uhle 1894: 94.1)

(13) *ox-a=chay qeri tan-**[n]i***
go-FUT=DEC *qeri*_fish hunt-AG
'We will go to hunt *qeri* fish.'
(lit: 'We will go as *qeri* fish hunters.') (Vellard 1967: 9)

The forms *-xapa* and *-ni* differ with respect to animacy and control. Purpose relations expressed by *-xapa* refer to the abstract event, whereas *-ni* in its purpose-marking function refers to a participant in the event: the agent. Thus, in purpose relations expressed by *-ni* the subject is always in control of the event marked by *-ni*, which is not necessarily the case with *-xapa*-marked purpose relations (cf. (10)). The form *-ni* as an indicator of purpose thus appears to express prototypical purpose relations, as described by Cristofaro (2003: 157). However, it has to be pointed out that with verbs other than motion verbs *-ni* does not have a purpose reading but is an agentiviser.

The agentiviser *-ni* also serves to build relative clauses (Hannß 2008: 292), in which it resembles the Quechua agentiviser *-q* (Cusihuaman 1976: 220, 221, Muysken, this volume).[13]

2.2 Complement relations

Complement relations are characterised by Cristofaro (2003: 95) as a link between "two SoAs such that one of them (the main one) entails that another one

13. Furthermore, the agentiviser *-ni* is probably related to the Uchumataqu habitual marker *-ni* (and its allomorph *-in*).

(the dependent one) is referred to. […] Arguments are a necessary specification of predicates, […]." Givón (1980: 337, quoted in Croft 2003: 215) ranks complement types on a scale, categorised for binding, independence, and success, i.e. the more binding the main verb is, the less independent is the agent of the dependent verb and the more likely is the event described by the main verb to succeed. Givón provides the following scale for complement relation types:

a. The higher a verb is on the binding scale, the less is the agent in its complement/embedded clause likely to exhibit the case-marking characteristics of subjects/agents/topics.
b. The higher a verb is on the binding scale, the less is the verb of its complement clause likely to exhibit the tense-aspect-modality markings characteristic of main clauses.
c. The higher a verb is on the binding scale, the more is the verb in its complement clause likely to be predicate-raised, i.e. lexicalized as one word with the main verb. (Givón 1980: 337)

This relates also to the notion of semantic integration, likewise treated by Givón (1990: 537). Manipulative and modality verbs show a higher degree of semantic integration than do e.g. utterance verbs (cf. Croft 2003: 215).

Two types of subordinating complement relations can be established for Uchumataqu: one involving action nominaliser *-s(i)* and one consisting of multi-verb constructions. I will first present the action nominaliser before turning to the multi-verb constructions.

2.2.1 *Action nominaliser -s(i)*

Action nominaliser *-s(i)* is attached to every type of verb, apparently without restrictions, and can be translated as either '(the) …-ing' or else with the infinitive form, as e.g. 'to go' (cf. (14)). In most cases the main verb is the volition verb *pek-* 'to want'. This verb always implies coreferentiality of participants.

(14) *am-tani* *ok-**[s]i*** *pek-u=chay* *ana=l* *wir=ki* *puiri-u*[14] *(=chay)*
you-COM go-AN want-1SG=DEC NEG=1 I=TOP can-1SG(=DEC)
'I want to go with you, [but] I can't.' (Métraux 1935: 110)

This clause matches the description as given by Givón. The verb *pek-* is highly binding and shows every aspect of a main-clause verb: first person singular marker

14. From Spanish *poder* 'can'. Parenthesis by Métraux.

-u and declarative *=chay*. Correspondingly, the nominalised complement *ok-[s]i* lacks the syntactic properties outlined under (a) and (b) (cf. Section 2).

However, the following clause is less characteristic. It is one of the few instances where the main verb is not *pek-*, and although syntactically the clause behaves like a typical complement clause, its interpretation and analysis are not entirely clear.

(15) *xilakata mach soxna kona-**si** ox=chay*
jilakata son duck kill-AN go=DEC
'The son of the *jilakata* [local authority] goes to kill ducks.' (Métraux 1935: 90)

The relation that exists between the main verb *ox-* 'to go' and the dependent verb *kona-* 'to kill', inflected with action nominaliser *-s(i)*, is uncertain. The verb *ox-* can be described as rather low on the binding scale and thus, it is remarkable that it selects the use of action nominaliser *-s(i)* at all. Furthermore, the translation as proposed by Vellard implies some purpose, which, however, does not go too well with the function and meaning of *-s(i)* attested elsewhere. The expectation is rather that either purpose marker *-xapa* or agentiviser *-ni* would be employed if indeed a purposive meaning was intended. Thus, action nominaliser *-s(i)* either has a function undescribed yet, or (15) may be regarded as some mis-interpretation. So far, I am unable to provide an interpretation, but it is possible that the use of *-s(i)* in (15) is in some way related to its lexicalisation on instruments, such as *potsi* 'knife' (Métraux 1935: 94), which consists of the verbal stem *pot-* 'to cut' and lexicalised action nominaliser *-s(i)*. The same is true for *taxsi* 'bed', derived from *tax-* 'to sleep' and *-s(i)*. Consider (16), where the verb is likewise *ox-* 'to go', but its relation to *taxsi* 'bed' is entirely different from the one expressed in (15).

(16) *wiyanis waxe ox=chay t[a]x[s]i*
night immediately go=DEC bed
'At night, we go to bed immediately.' (Vellard 1967: 1)

2.2.2 *Multi-verb constructions*

Another means to express complement relations are multi-verb constructions (cf. Muysken 2000: 108). These multi-verb constructions consist of two verbs, one of which is dependent on the other. As with action nominaliser *-s(i)*, the main verb is in almost every case the volition verb *pek-* 'to want'. However, in contrast to constructions involving the action nominaliser *-s(i)*, the subordinate verb in a multi-verb construction does not carry any marker of syntactic dependency and likewise lacks the declarative marker *=chay* (cf. Croft 2003: 216, 217 and (b) in Section (2). Multi-verb constructions are translated using an infinitive form.

(17) *ana* ***liks*** *pek-u=chay*
NEG drink want-1SG=DEC
'I do not want to drink.' (Muysken 2005: 46)

(18) *wir=l–i* ***chisa*** *pek-u=chay* *qot suñ[i]-s* *taqu*
I=1-LV speak want-1SG=DEC Uru-GEN word
'I want to speak the Urus' language.' (Vellard 1951: 35)

With respect to the main verb and the meaning of the constructions, multi-verbs very much resemble complement relations built with action nominaliser *-s(i)*. In contrast to the latter, multi-verb constructions convey an even higher degree of semantic integration. It is possible that multi-verb constructions with *pek-* as the main verb denote a permanent attitude or wish. In this sense, (17) could be understood as a permanent refusal to drink, while (18) expresses a long-standing wish to learn Uchumataqu. In contrast, (14) would then denote a rather momentary desire to accompany somebody. However, since we lack a context to these clauses, this interpretation has to remain speculative.

The following case forms a subcategory of the multi-verb constructions. What is remarkable is that the main verb behaves like the complement and vice versa, i.e. the main verb (which, in all examples of this type, is *pek-* 'to want') is unmarked and precedes its dependent verb which bears person, tense/aspect marking, and declarative *-chay*. Although the translation suggests an interpretation as in a usual multi-verb construction, the potential permanent attitude or wish that appears to be characteristic for multi-verb constructions (see above) is missing here.

(19) *jas* *pek* *hes-n-a=chay* *apay*
now want rest-OBJ-FUT=DEC father
'Now, I will want to rest [myself], father.' (Vellard 1967: 9)

The following is a hypothesis as to how constructions as in (19) might be interpreted. We may assume that the semantics of *pek-* 'to want' inherently express a future meaning and thus, the use of the verbal future tense markers *-a*/*-aki* is prevented by the semantics of *pek-*. This is supported by the observation that there do not exist forms such as **pek-a-* 'I will want' or **pek-aki-* 'you/(s)he/… will want'. When the speaker wants to express a future meaning explicitly, the following process takes place: the main verb *pek-* 'to want' is shifted to a position usually occupied by the subordinate verb, while the subordinate verb itself occupies the slot usually taken by the main verb. Furthermore, it is inflected with the tense, aspect, and mood markers, which includes declarative *=chay*. Since the subordinate verb is semantically unrestricted, it can take the future tense markers *-a*/*-aki* and thus express a future meaning explicitly. If this assumption is correct, a native speaker

of Uchumataqu would have interpreted the construction in (19) as expressing a complement relation with *pek-* as the main verb and the second verb as being subordinate despite the reversed word order and marking.

3. Uchumataqu and Chipaya in a comparative perspective

In what follows, I will briefly present subordination strategies employed by Chipaya and compare them to the ones established for Uchumataqu.[15] According to Cerrón-Palomino (2006: 254ff), subordination in Chipaya comprises three different relations: adverbial, complement, and adjectival relations (cf. Figure 1 in 2 and Figure 2).[16] The suffixes that mark these relations are nominalising suffixes.

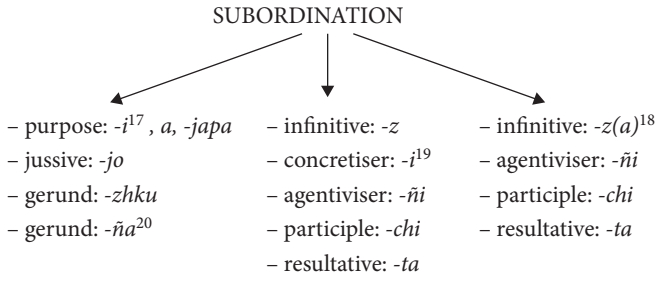

Figure 2. Schematic overview of Chipaya subordination

15. The presentation on Chipaya subordination strategies will be limited to constructions involving non-finite verbs forms since only these were considered for Uchumataqu.

16. The term 'adjectival relations' is mine and not used by Cristofaro (2003) or Cerrón-Palomino (2006). It has to be noted that Cerrón-Palomino (2006) does not use the term 'relations' but instead applies the more general expression 'clause'.

17. Cerrón-Palomino (2006) does not specify whether purpose marker *-i* is the same form as concretiser *-i* (glosses are mine). Since none of the suffixes that occur in adverbial relations plays a role in complement or adjectival relations, I assume that purpose marking *-i* and the concretiser are two different, although homonymous forms.

18. Cerrón-Palomino (2006: 254) does not provide an explanation as to why the form of the infinitive here is *-z(a)* as opposed to the infinitive *-z* used in complementation.

19. With the term "concretiser" I follow Cerrón-Palomino (2006: 257), who labels this suffix "concretador".

20. A loan from Aymara (Cerrón-Palomino 2006: 135).

The Chipaya subordinate clauses in adverbial and adjectival function (cf. 3.1 and 3.3) precede the main-clause verb. They form either the first part of the entire construction (cf. (31)) or are preceded by the subject (and sometimes the object) of the main clause, as in (33).[21] Forms marked for complementation can either precede or follow the main clause. Only adverbial relations expressed by the forms *-japa* and *-jo* always occur at the end of a clause and thus follow the main-clause verb. As in Uchumataqu, the declarative *=tra* marks a verb as being the main-clause verb, whereas its absence is an indicator of subordination. These general features of subordination in Chipaya resemble those found in Uchumataqu.

All Chipaya data as well as the translations of the examples are taken from Cerrón-Palomino (2006). The glosses and the translation into English are mine.

3.1 Adverbial relations

Adverbial relations in Chipaya are expressed by the following suffixes: *-i*, *-a*, *-japa*, *-jo*, *-zhku*, and *-ña*, of which *-i*, *-a*, and *-japa* express purpose, while *-jo* marks an indirect command and the forms *-zhku* and *-ña*, both termed gerund, express a temporal relationship. Although not classified as such by Cerrón-Palomino, I consider *-zhku* and *-ña* to express an adverbial relation due to the temporal connotation they bear.

-i: Subordinate adverbial relations marked by the nominaliser *-i* express an immediate purpose and the verb of the main clause is a motion verb. The relation between participants is one of coreferentiality (Cerrón-Palomino 2006: 260).

(20) *naa=ki trheri qaj-**i** oqh-chi-n=tra*
she=TOP food lend-PUR1 go-PST-3=DEC
'She went to lend food.' (Cerrón-Palomino 2006: 260)

-a: The subordinating nominaliser *-a* has the same properties as *-i* described above, but expresses a more remote purpose, whose fulfilment is less definite (Cerrón-Palomino 2006: 260).

(21) *zapa wata qhaz puk-**a** oqh-lay-s=tra*
each year water dam-REM.PUR go-ASP-MED=DEC
'Each year, one would have to go to dam the water.'
(Cerrón-Palomino 2006: 260, 261)

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21. In (31), the subordinate clause consists of the expression *chipay taqu zi-z-ki* 'to understand the Chipaya language' (Cerrón-Palomino 2006: 254). In (33), the subordinate clause is built only by the form *tsat-chi* 'dancing' (Cerrón-Palomino 2006: 256).

-japa: Purpose marker *-japa* marks coreferentiality and expressions nominalised with *-japa* have a strong tendency to occur at the right periphery of a clause. The Chipaya form *-japa* is the equivalent of the Uchumataqu marker *-xapa* (cf. (9), (10)). Verbs carrying *-japa* must take the mediopassive marker *-z(i)* (MED),[22] which precedes *-japa* (Cerrón-Palomino 2006: 261).

(22) *nii=ki qhuya kep-chi=tra trheri tan-z-**japa***
he=TOP house return-PST=DEC food take-MED-PUR2
'He returned to the house for taking food.' (Cerrón-Palomino 2006: 261)

-jo: This marker conveys an indirect command (JUS) and thus marks non-coreferentiality of participants. It is attached to the subordinate verb. As with *-japa*, verbs inflected with *-jo* occur at the right periphery of the clause (Cerrón-Palomino 2006: 261).

(23) *tii kintu kint-a=tra*[23] *wer ana khuñ-a-**jo***
this story tell-FUT=DEC I NEG forget-?[24]-JUS
'I will tell this story so that you won't forget me.' (Cerrón-Palomino 2006: 261)

-zhku: Before turning to a description of the form *-zhku*, it has to be noted that Cerrón-Palomino (2006: 153) places *-zhku* within a paradigm of other subordinating morphemes that express both the notion of temporal relationship and participant reference. He does not consider *-zhku* to be part of the set of subordinating morphemes that is discussed in this section. Despite this, it will be presented here, because of its similarity to the Uchumataqu gerund *-ku* (cf. 2.1.2).

According to Cerrón-Palomino (2006: 153), the Chipaya form *-zhku* expresses coreferentiality and non-simultaneity. However, the translations to the examples suggest an interpretation of *-zhku* as a marker of coreferentiality and simultaneity.

(24) *uuzi*[25] *zqizi kut-**zhku** qiti=ki uyu luz-chi-ki=tra*
sheep skin put-GER fox=TOP pit enter-PST-REP=DEC
'Putting on the sheep skin the fox entered the pit.'
(Cerrón-Palomino 2006: 153)

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22. Or its allomorph *-s(i)*.

23. Both the noun *kintu* and the verb *kint-* are derived from Spanish *cuento* and *contar* '(folk) story' and 'to tell', respectively.

24. I am unable to provide an interpretation for *-a* preceding the form *-jo*.

25. A loan from Spanish *oveja* 'sheep'.

Although this is in contrast to what Cerrón-Palomino suggests, I propose to view *-zhku* as a marker of coreferentiality and simultaneity. As such, *-zhku* is glossed as gerund (GER).

-ña: The form *-ña* is a loan from Aymara (Cerrón-Palomino 2006: 135). In combination with terminative *-kama* gerund *-ña* expresses temporal subordination, which specifies the circumstances under which the event designated by the main verb takes place (Cerrón-Palomino 2006: 262). In contrast to gerund *-zhku* described above, forms marked by the sequence *-ña-kama* refer to an event that has not been accomplished yet at the moment of speaking (cf. Porterie-Gutiérrez 1981: 115).

(25) *wer=ki lanz-n-a=tra tik-za-**ñ[a]-kama***
I=TOP work-TR-FUT=DEC die-INCL-GER-TER
'I will work until I will die (, too).'
(lit.: '[…] until [my] dying.') (Cerrón-Palomino 2006: 262)

3.2 Complement relations

Chipaya has a set of five suffixes that mark complement relations: infinitive *-z*, concretiser *-i*, agentiviser *-ñi*, participle *-chi*, and resultative *-ta* (Cerrón-Palomino 2006: 257).

-z: The infinitive marker *-z* (INF) is used with cognition and desiderative verbs as main-clause verbs and expresses coreferentiality (Cerrón-Palomino 2006: 257). It resembles the Uchumataqu action nominaliser *-si* (cf. (14)).

(26) *qiti=ki zina-lla ketwana lul-z pek-ñi-ta-ki=tra*
FOX=TOP only-DIM rabbit eat-INF want-HAB-REP=DEC
'It is said that the fox only wanted to eat the rabbit.'
(Cerrón-Palomino 2006: 257)

-i: With the concretiser *-i* (CON) main-clause verbs are either modals that describe an ability or else phasal verbs. The subordinating nominaliser *-i* marks coreferentiality, and the event of the subordinate clause is posterior to that of the main clause (Cerrón-Palomino 2006: 258).

(27) *ana quch sujit-**i***[26] *at-chi=tra qiti=ki*
NEG rope hold-CON can-PST=DEC FOX=TOP
'The fox could not hold the rope.' (Cerrón-Palomino 2006: 258)

26. The form *sujit-* is a loan from Spanish *sujetar* 'to hold'.

-ñi: Forms marked by the agentiviser *-ñi* (AG) occur with verbs of perception, volition, and cognition as main-clause verbs. The relation between participants is one of non-coreferentiality (Cerrón-Palomino 2006: 258, 259). With volition verbs, the *-ñi*-marked complement is irreal since it refers to something not yet achieved or fulfilled (cf. (28)).

(28) *wer=ki am oqh-**ñi**=l pek-u=tra*
I=TOP you go-AG=1 want-1SG=DEC
'I want you to go.' (Cerrón-Palomino 2006: 259)

-chi: A complement relation marked with participle *-chi* (PRT) expresses temporal anteriority to the event expressed by the main verb, which is one of sensation or cognition (Cerrón-Palomino 2006: 259).

(29) *wer=ki am siklu*[27] *kiz-**chi** cher-chi-n=tra*
I=TOP you bicycle steal-PRT see-PST-1=DEC
'I saw you stealing the bicycle.' (Cerrón-Palomino 2006: 259)

-ta: Subordination with resultative *-ta* (RES) also marks a past tense relation (similar to *-chi*), but emphasises the resultative notion (Cerrón-Palomino 2006: 256, 259, 260), i.e. the outcome of the event described by the main verb. It is well possible that Chipaya *-ta* is either a direct loan from Aymara (cf. Porterie-Gutiérrez 1981: 117) or has at least been inspired by it.

(30) *nii=ki am-i-zh awtu*[28] *qhay-**ta** ziz=tra*
he=TOP you-LV-GEN car buy-RES know=DEC
'He knows that you bought a car
(lit.: He knows your bought car.).' (Cerrón-Palomino 2006: 260)

3.3 Adjectival relations

What is called "subordinadas adjetivas"[29] by Cerrón-Palomino (2006: 254ff) is a type of subordination in which the subordinate clause serves as a modifier to the main clause. They are expressed by the same set of suffixes that also functions in

27. From Spanish *bicicleta* 'bicycle'.

28. From Bolivian Spanish *auto* 'car'.

29. To maintain the terminology used so far I will speak of 'adjectival relations' in the following.

marking complement relations, except for the concretiser *-i* (Cerrón-Palomino 2006: 257; cf. 3.2), which is restricted to complement relations. The difference between these and adjectival relations lies in the semantic structure of the main-clause verb: "La elección de tales sufijos, que actúan en este caso como complementizadores, está determinada por la estructura semántica del verbo principal" (Cerrón-Palomino 2006: 257). However, Cerrón-Palomino does not give a further specification as to how the semantic structure of main-clause verbs in complement relations differs from that of adjectival relations.

-z(a): In its modifying function the infinitive *-z(a)* describes the circumstance of the event expressed in the main clause or provides a statement on its factual value. The general temporal relation is that of present tense (Cerrón-Palomino 2006: 254, 255).

(31) *chipay taqu zi-z=ki ancha fasila=tra*
Chipaya language know-INF=TOP very easy=DEC
'It is very easy to understand the Chipaya language.'
(Cerrón-Palomino 2006: 254)

-ñi: In (32) the construction containing the agentiviser *-ñi* modifies the main clause. Agentiviser *-ñi* is possibly related to the verbal habitual marker (cf. 2.1.4; cf. Cerrón-Palomino 2006: 255).

(32) *tshii walja lanz-**ñi** zhoñi=ki zhel-at-ki=tra*
one much work-AG man=TOP exist-PST-REP=DEC
'They say there was a hard working man.' (Cerrón-Palomino 2006: 255)

-chi: Cerrón-Palomino (2006: 255, 256) ascribes to participle *-chi* the same properties as to *-z(a)* and *-ñi*, with the only difference that the temporal relation expressed by *-chi* is a recent past.

(33) *wer=ki tsat-**chi** zhoñi=l qhur-u=tra*
I=TOP dance-PRT man=1 look_for-1SG=DEC
'I look for the man who danced.' (Cerrón-Palomino 2006: 256)

-ta: The meaning of resultative *-ta* in its modifying function does not differ notably from the one in complementation (cf. 3.2). That is, a form marked with *-ta* denotes posteriority with respect to the main-clause verb, but emphasises the result of the event expressed by the subordinate form.

(34) *achik-zh* *ill-**ta*** *kula* *cher-chi=tra*
mouse-GEN select-RES quinua see-PST=DEC
'I saw the *quinua* that had been selected by the mouse
(lit.: I saw the mouse's selected *quinua*.)' (Cerrón-Palomino 2006: 256)

3.4 Preliminary conclusions

If we compare the subordination devices of Uchumataqu and Chipaya, we can distinguish three groups, which will be briefly presented below.

The first group consists of forms that resemble each other to a high degree, both formally and functionally. To this group belong Chipaya infinitive marker *-z* and purpose *-japa*, which can be equated with Uchumataqu action nominaliser *-s(i)* and purpose *-xapa*. In the case of Chipaya *-z* and Uchumataqu *-s(i)*, we find that both forms have a strong tendency to occur with main verbs that express volition. Furthermore, subordinate relations marked by *-z* or *-s(i)* are coreferential (cf. 2.2.1 and 3.2). The Chipaya purpose marker *-japa* resembles the Uchumataqu purpose marker *-xapa* with respect to form but differs slightly with regard to function. The Chipaya form always marks coreferentiality (cf. 3.1), which is not the case with the Uchumataqu form *-xapa* (cf. 2.1.4). However, both forms express purpose and furthermore, subordinate relations with *-japa* or *-xapa*, respectively, occur at the periphery of a clause. Although the Chipaya and Uchumataqu forms can differ with respect to participant encoding, they still resemble each other to a considerable degree. Another suffix is gerund *-ku*, which has its equivalent in Chipaya *-zhku* (Cerrón-Palomino 2006: 152, 153).

A second group comprises morphemes that are similar or identical with respect to their form but differ in function. This group consists of the agentiviser *-ñi* (Chipaya) or *-ni* (Uchumataqu), respectively (cf. 2.1.4 and 3.2), and the resultative marker *-ta*. In Chipaya, the latter appears to be a direct loan from Aymara, particularly with respect to its nominalising function. Uchumataqu has a resultative marker *-t(a)*, too, but in contrast to Chipaya it is not nominalising, and only under particular phonological circumstances does it take the form *-ta*. Furthermore, it has no function in subordination, but is rather an aspectual suffix and occurs on main-clause verbs only. However, it is possible that Uchumataqu *-t(a)* developed from or has been inspired by the Aymara suffix. Another pair of formally similar but functionally different morphemes are the Chipaya and Uchumataqu agentiviser forms *-ñi* and *-ni*, respectively. In principle, both forms are agentivising but differ when it comes to their function in subordination. The Chipaya form *-ñi* marks subordination by complementation and the relationship between participants is one of non-coreferentiality (cf. 3.2, 3.3). In contrast, the Uchumataqu form

-ni functions as a means of subordination only with motion verbs as main-clause verbs, in which case *-ni* expresses purpose and coreferentiality (cf. 2.1.4). Finally, the purpose markers *-i* and *-a* (cf. (20), (21)) may tentatively be placed in this second group. Formally, Chipaya constructions involving the purpose markers *-i* and *-a* resemble multi-verb constructions in Uchumataqu (cf. 2.2.2). However, the structures differ with respect to their function: while the Chipaya purpose markers *-i* and *-a* express adverbial relations, the Uchumataqu multi-verb constructions are a means of complementation. Furthermore, the main-clause verb in Chipaya is a motion verb, whereas in Uchumataqu it is one of volition. What the constructions do have in common is that both express coreferentiality and refer to an event that will take place in some future time. However, of the forms placed in the second group, Chipaya purpose markers *-i* and *-a* and Uchumataqu multi-verb constructions show the lowest degree of correspondence.

The final group contains forms that are characteristic of each variety. In Chipaya, this group comprises the suffixes *-chi* (participle), the marker of an indirect command *-jo*, gerund *-ña* (cf. (25)), and concretiser *-i* (cf. (27)). Chipaya jussive *-jo* is possibly related to Uchumataqu jussive *-j*, and therefore, Chipaya *-jo* could possibly also be placed in the second group. However, for Uchumataqu *-j*, no subordinating function can be established. A form characteristic to Uchumataqu is conditional *-(t)jani* (cf. (7), (8)). If one stresses the differences between Chipaya purpose marking *-i* and *-a* and Uchumataqu multi-verb constructions (cf. (17), (18)), namely the different functions and the distinct verb types occurring as main verbs, then Uchumataqu multi-verb constructions can be placed in the third group, too.

Figure 3 gives an overview of the degree to which Chipaya subordination devices are similar to those of Uchumataqu.

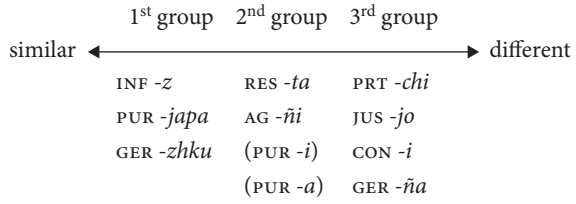

Figure 3. Degree of similarity of Chipaya subordination devices to those of Uchumataqu

The results are briefly summarised in Table 3, where each Chipaya subordination device is compared to its equivalent in Uchumataqu (provided there exists an equivalent). Additionally, information is given about the section in which each morpheme is treated, and their function is summarised.

Table 3. Overview of subordinating devices in Chipaya and Uchumataqu[30]

	Chipaya	Section	Uchumataqu	Section	Function	
1st group	*-z* (INF)	3.2	*-s(i)* (AN)	2.2.1	complement relations[31]	
	-japa (PUR)	3.1	*-xapa* (PUR)	2.1.4	adverbial relations	
	-zhku (GER)	3.1	*-ku* (GER)	2.1.2	adverbial relations	
					Chipaya	**Uchumataqu**
2nd group	*-ñi* (AG)	3.2, 3.3	*-ni* (AG)	2.1.4	complement and adjectival relations	adverbial relations
	-ta (RES)	3.2, 3.3	*-t(a)* (RES)		complement and adjectival relations	
	-i/*-a* (PUR)	3.1	multi-verb constructions	2.2.2	adverbial relations	complement relations
	-chi (PRT)	3.2, 3.3	*-(t)jani* (CD)	2.1.3	complement and adjectival relations	adverbial relations
3rd group	*-jo* (JUS)	3.1			adverbial relations	
	-ña (GER)	3.1			adverbial relations	
	-i (CON)	3.2			complement relations	

4. Conclusions

One of the aims of this article was to discuss whether Uchumataqu and Chipaya have subordinating systems that are close enough to each other to be viewed as one system or whether the systems are to be considered as two different ones. As has been shown in the previous sections, the subordinating systems of Chipaya and Uchumataqu differ notably from each other and the number of formally and functionally similar or identical items is relatively small. It therefore seems justified to speak of two different subordination systems, which can be characterised as follows.

The subordination system of Chipaya is richer in morphologically bound forms and thus resembles that of synthetic languages like Aymara and Quechua. Uchumataqu, in contrast, has only a relatively small number of bound subordinating morphemes when compared to Chipaya. Instead, we find features such as multi-verb constructions or co-ordination and personal pronouns used to express what in Chipaya is signalled by suffixes. Thus, the subordination system of Uchumataqu (as well as other parts of the language) is analytic rather than

30. Shaded areas denote either forms that are missing in one of the varieties or which do not have a subordinating function.

31. In case of Chipaya the infinitive also expresses adjectival relations.

synthetic and is reminiscent of an isolating language type rather than an agglutinating language, which, however, is today the prevalent type in the Andean languages. Thus, from a typological point of view Uchumataqu differs not only from its closely related variety Chipaya but also from Quechua and Aymara, although the latter exerted considerable influence on Uchumataqu.

However, despite these differences Uchumataqu and Chipaya also show some similarities, which can be ascribed to genetic relationship. Apart from the subordinating devices discussed in this paper, the nominal systems of Uchumataqu and Chipaya resemble each other to a certain degree. What is remarkable is that the nominal systems of both Uchumataqu and Chipaya are closer to Quechua than to Aymara, although the latter has been the dominant indigenous language in the Uru-Chipaya region for a considerable span of time. Another aspect in which Uchumataqu and Chipaya are rather close is the lexicon.

Abbreviations and symbols

In examples:

(…) addition in original source
[…] addition KH

AG	agentiviser
AN	action nominaliser
ASP	aspect
CD	conditional
COM	comitative
CON	concretiser
DEC	declarative
DIM	diminutive
DIR	directional
DS	different subject
FUT	future tense
GEN	genitive
GER	gerund
HAB	habitual
IN	in-group marker
INCL	inclusive
INF	infinitive
IRR	irrealis
JUS	jussive
LOC	locative
LV	linking vowel
MED	mediopassive
NEG	negation
OBJ	object marker
PRT	participle
PST	past tense
PUR1	purpose 1
PUR 2	purpose 2
REM.PUR	remote purpose
REP	reportative
RES	resultative
SG	singular
SU	subject marker
TER	terminative
TOP	topic marker
TR	transitiviser
1	first person
2	second person
3	third person

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